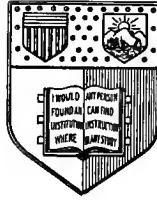


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History
of
The New York
Farmers
1882 - 1910



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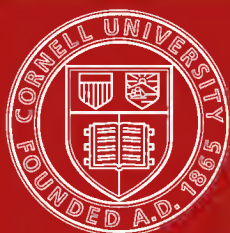
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HISTORY
OF
THE NEW YORK FARMERS
1882-1910

Compiled by
THOMAS STURGIS

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“The well-being of a people is like a tree ; agriculture is its root, manufacture and commerce are its branches and its life ; if the root is injured the leaves fall, the branches break away and the tree dies.”

ANCIENT CHINESE PHILOSOPHER.

PRESIDENTS.

James A. Burden	Feb. 14, 1882 to Dec. 11, 1884
Samuel Thorne	Dec. 11, 1884 to Jan. 15, 1885
LeGrand B. Cannon	Jan. 15, 1885 to Dec. 19, 1885
Francis R. Rives	Dec. 19, 1885 to Dec. 28, 1891
John Jay	Dec. 28, 1891 to Dec. 21, 1893
Frederic Bronson	Dec. 21, 1893 to Dec. 21, 1897
Daniel F. Appleton	Dec. 21, 1897 to Dec. 18, 1900
John D. Wing	Dec. 18, 1900 to Dec. 16, 1902
W. Austin Wadsworth.....	Dec. 16, 1902 to Feb. 21, 1905
John S. Barnes	Feb. 21, 1905 to Feb. 18, 1908
Reginald W. Rives	Feb. 18, 1908 to Feb. 21, 1911

VICE-PRESIDENTS.

Samuel Thorne	Feb. 14, 1882 to Dec. 11, 1884
LeGrand B. Cannon	Dec. 11, 1884 to Jan. 15, 1885
Francis R. Rives	Jan. 15, 1885 to Dec. 19, 1885
John Jay	Dec. 19, 1885 to Dec. 28, 1891
Frederic Bronson	Dec. 28, 1891 to Dec. 21, 1893
Theo. A. Havemeyer	Dec. 21, 1893 to Dec. 21, 1897
Samuel Thorne	Dec. 21, 1897 to Dec. 20, 1898
W. Austin Wadsworth.....	Dec. 20, 1898 to Dec. 16, 1902
Reginald W. Rives	Dec. 16, 1902 to Feb. 18, 1908
Charles F. Chandler	Feb. 18, 1908 to Feb. 21, 1911

SECRETARIES AND TREASURERS.

James Otis	Feb. 14, 1882 to Dec. 11, 1890
Walter L. Suydam	Dec. 11, 1890 to Dec. 28, 1891
Jon ^o athan Thorne	Dec. 28, 1891 to Dec. 21, 1893
Thomas Sturgis	Dec. 21, 1893 to Dec. 18, 1900
Walter L. Suydam	Dec. 18, 1900 to Dec. 17, 1901
John Mayer	} Dec. 17, 1901 to Dec. 16, 1902
R. Somers Hayes	
Francis R. Appleton	Dec. 16, 1902 to Feb. 16, 1909
Samuel Sloan	Feb. 16, 1909 to

FOUNDERS

Agnew, Cornelius R.	Livingston, Johnston
Appleton, Daniel F.	Otis, James
Beck, George F.	Pellew, Henry E.
Bronson, Frederic	Post, George B.
Burden, James A.	Potts, Fred A.
Cannon, LeGrand B.	Robert, C. R.
Chandler, Charles F.	Sheldon, James O.
Clift, Smith	Sloan, Samuel
Corning, Erastus	Stillman, James
Dinsmore, William B.	Stuyvesant, Rutherford
Grant, Gen. U. S.	Swan, Benjamin L.
Havemeyer, Theodore A.	Thorne, Edwin
Holly, John J.	Thorne, Samuel
Iselin, Adrian	Wadsworth, W. Austin
Jay, John	Warren, John Hobart
Lee, J. Lawrence	Wing, John D.

SUBJECTS DISCUSSED.

1882-83

How is the Eastern Farmer to compete with the Western Farmer

Sorghum

Butter

The Cattle Ranches of the Far West

1883-84

Tree Culture and Forestry

Meadow and Pasture Grasses

Horse Raising in the Eastern States ✓

1884-85

Sheep and Sheep Husbandry

Grape Culture and American Wines

Fish Culture

1885-86

The Preservation of Game

Feeding of Cattle

Poultry

1886-87

Subsoil Drainage

Fertilizers

Rotation of Crops

Injurious Insects

1887-88

Fruits such as Farmers grow, and their Cultivation

Feeding of Cattle

Feeding and Breeding of Swine

1888-89

Contagious Diseases of our Domestic Animals

Farm Structures and Fences

Pleasures and Pains of Farming

1889-90

Country Highways and Roads, their Construction and
Maintenance

The American Trotting Horse

Landscape Gardening

1890-91

Reclamation of Waste Lands

The Feeding of Cattle

Fodder Crops

1891-92

The Best Breed of Horses for use on the Farm ~

Arboriculture for the Farm, Village and Highway

Foreign Cheese Making

1892-93

Diseases of Cattle which affect the Milk Secretion
Weeds—How to subdue and extirpate them
Feeding Cattle for Milk and for Beef

1893-94

The Culture of the Chrysanthemum and the Rose
The Sugar Beet, its Cultivation and Uses
Surface and Subsurface Irrigation

1894-95

Renovating Pastures without Ploughing
Planting and Pruning Forest and Nut Trees
Horse Shoeing

1895-96

Country House Sewerage
Green Manuring Only
Tuberculosis—Can it be eradicated by Breeding

1896-97

Hot House Grapes and Fruits
The Pig
Indian Corn

1897-98

Flowering Shrubs
Breeding Poultry
Tobacco

1898-99

Hay, its Cultivation, Curing and Marketing
The Apple, its Culture and Uses
Breeding, Breaking and Training of Young Horses

1899-1900

Cultivation of Small Fruits
Electricity applied to Cultivation of Plants
Fertilizers

1900-01

Autumn Wild Flowers
Forestry
Our Native Birds

1901-02

Dairying at Home and Abroad
Fruit Forcing under Glass
Grasses

1902-03

Modern Harvesting Methods
The New York Botanical Garden
Forestry for Farmers

1903-04

The Forward Movement in Agricultural Teaching
Milk as a Carrier of Disease
The Heavy Harness Horse

1904-05

Nitrifying Bacteria
The Pig
Rotation of Crops

1905-06

The Origin and History of the Horse ✓
Trees and their Propagation; Insect Enemies and their
Control
Carnegie Institution of Washington and its Work

1906-07

The Management of a Country Place
Progress in Plant Work as affecting the American
Farmer and Fruit Grower
Farms and Farmers

1907-08

Rural Highways

Beneficial Bacteria for Leguminous Crops

Plant Breeding—What it is doing for Agriculture

1908-09

The Irrigation Outlook in the United States

Economic Value of Modern Roads Abroad and at Home

The Rural Outlook

1909-10

Tree Planting and Maintenance After Planting

The Labor Question in the Agricultural Districts

Restoring the Fertility of the Soil

REGINALD W. RIVES, ESQ.,
President The New York Farmers.

Sir:

Your Committee, appointed at the meeting of February 15, 1910, "to prepare and print a History of the New York Farmers" begs leave to submit the following report.

The question of the form which such a history should take was carefully considered at the outset, and was not easy of solution. The story of its organization and its purpose, who were its founders, and who have been its members, throughout nearly one-third of a century of its busy, useful life could be readily told—yet that would not have been its history, but only a part of it and that the least important. Brief biographies of our members could have been attempted, but the lives of these men, many of them eminent, have been lived in other spheres of usefulness and their membership here has been only an incident. An effort to epitomize their careers might easily be judged inadequate and, toward those living, have been deemed an intrusion upon the personal privacy which has always been cherished among us.

These reflections lead us to the conclusion that the real history of the "Farmers" is the history of what they have done. "By their works ye shall know them" is the Biblical injunction. The discussions and debates, the addresses and papers, which have occupied nearly a hundred evenings, and the volumes of "Proceedings" which have been widely disseminated, and which for many years

have gone out all over this country, and to some extent to Europe, constitute that work.

The Chairman was therefore asked to prepare a compendium or synopsis of this really vast amount of information, and to couple with it an account of the organization, lists of officers and members, an index of subjects discussed, with their dates, and such brief biographical comment only as was suggested by the minutes or seemed appropriate to the occasion.

To this work most of the spare hours of the past summer and autumn have been devoted, and the result is now before you in the shape of one modest volume. The author is conscious of its defects and shortcomings, some of them due to that need of condensation which prevented doing full justice to much material that deserved broader treatment, and for these he asks your lenient judgment. His fellow members on the Committee have approved the work, expressing the opinion that it would measureably meet the wishes of our members as expressed by the resolution. We therefore make it a part of our report and submit it herewith.

Respectfully,

THOS. STURGIS, *Chairman,*

FRANCIS R. APPLETON,	}	Members of Committee
SAMUEL SLOAN,		

REGINALD W. RIVES,
Pres. and Ex-officio member.

New York, December 1, 1910.

HISTORY OF THE NEW YORK FARMERS

CONCEPTION AND ORGANIZATION

It is now some four hundred years since the earliest settlements of Europeans, recognized in history, were made upon the soil of what is now the United States, and it is fair to say that during that long period, agriculture, or farming, to give it the homely and familiar name, has been, preeminently, the occupation of our people: This has been partly due, of course, to the necessity for self-support forced upon any community which finds itself isolated from the opportunities of trade and barter with others, but in our case an important contributing factor has been the vast extent and wonderful fertility of the soil itself, of which it has been said "if it be but tickled with the plow, it will laugh with a harvest." Humboldt, looking from the highest points of the Alleghanies over the sea of verdure beneath him, and remembering, no doubt, the barren stony plains of Asia Minor, once a granary and garden spot, the treeless steppes of Turkestan, the soil-eroded mountains and exhausted fields of much of the older worlds of Europe and Asia, said "this is truly the leafy continent of the world." And the "leafy continent" was but another phrase for a virgin soil rich in the elements of plant life, for it is an old axiom of agriculture that land which produces luxuriant forests, will be equally prolific in domestic grain.

CONCEPTION AND ORGANIZATION

The forest was even then, at the dawn of white settlement, yielding to the rude implements of the farmer, and the Iroquois of New York state, the Algonquin tribes of the Atlantic seaboard, the Choctaws, Cherokees and Creeks of the South, the Shawnees of Ohio, and many other tribes, were clearing in the almost illimitable wilderness of trees, broad oases for the golden maize, still known to us as "Indian corn," and for the equally golden sweet potato. Around the little Fort of New Amsterdam the sturdy Dutchmen were stirring little patches of the soil of our own Manhattan Island with crops of cabbage, and at Plymouth the Pilgrims were sadly sowing wheat over the little burying ground on the hill where half their number lay at the end of the first winter, that the Indian foe might not know their losses.

From that distant time to the present, the primary instinct of the American has been toward the soil. To get land, to farm it, and as it increased in value and became scarcer, to press ever onward toward the setting sun after cheaper lands and larger acreages, has been the leading characteristic and trait in the national life of our people. Our railroad construction has been vast and wonderful, but its prosperity, its very existence, is collateral to the farm and whether following the farmer, where he has blazed the way, or leading him to new fields, the results of his labor are the chief asset of the railroad.

Our inventive genius has made of the Nineteenth century an epoch in the world's history, but whether it is shown in the spindle and shuttle of the cotton and woolen mills, in the machines of the harvest fields with their almost human intelligence, or in the mills where countless tons of steel rails are born annually, the thing which has called it into

CONCEPTION AND ORGANIZATION

being, the basis upon which it securely rests, are the varied products of the farm and the versatile activities of the American Farmer.

When we join to these reflections the thought that we numbered within our borders in the year 1900 nearly six million farms, owned by that number of farmers, employing actively some twenty-odd million souls, that these farms with their buildings and live stock were valued at twenty and one-half billion dollars (\$20,500,000,000), that their labor produced in 1909 eight billion, seven hundred and sixty million dollars (\$8,760,000,000) in value of raw products, and in the three years from 1907 to 1909 inclusive, twenty-four billion, twenty-six million dollars (\$24,026,000,000) in value, it will not be deemed invidious, nor in any sense as derogating from the admitted importance of other industries, when it is said that the first place must be conceded to agriculture, and that, more distinctively than in any other typical manner, the United States is a farming nation. In contradistinction England, being called upon in 1830 to choose between them, in the adoption of an economic policy, deliberately subordinated her farming to her manufacturing interests. She became the merchant and manufacturer for the world, but she has never since produced the bread or the meat necessary to support her own people. A corollary to this is found in Gladstone's controversy with Blaine, in which the former contended that you (the United States) should leave manufacturing to us and devote yourself *solely* to farming, because you can do that better and cheaper than anyone, and we want you to feed us while we do the world's manufacturing. The wisdom of the advice, from Gladstone's point of view, was unquestionable.

It is interesting to note, as an illustration of the national tendency, that many of our well-known men have

CONCEPTION AND ORGANIZATION

not only testified to its supreme importance as an industry for the masses, but have shown their personal affection for it as a pursuit, turning to it with unfailing interest from the cares of public office, from the anxieties of financial or commercial business, brightening their leisure hours, and later, their declining years, with the experiments and achievements in which Nature was the only partner, and success, while contributing to the store of human knowledge, brought neither bitterness nor disappointment to anyone. We recall with pleasure and approval the mental pictures of Washington at Mt. Vernon, and Jefferson at Monticello; of Henry Clay at his beloved Ashland, and of Webster at Marshfield, enjoying in their fields more unalloyed happiness and peace than in any of the triumphs of their public careers, and illustrating in their dignified and useful lives the truth of the old English saying that "farming is the true occupation for a gentleman."

Animated by this American instinct, this love of the soil, anxious to contribute their quota to the sum of agricultural knowledge and to aid in broadening the foundations upon which the fair superstructure of American farming was being erected, a group of gentlemen, worthy descendants in intelligence and in public spirit of those above noted, met for a conference upon this subject, by invitation of Mr. James A. Burden at his home in New York City in January, 1882.

The informal meeting ended in the decision to associate themselves for the purpose of discussing all subjects pertaining to agriculture, with such amount of publication and distribution as might be from time to time determined; to approach the national Congress and the State Legislature in order to obtain due recognition of the farming interests, and to co-operate practically with other associations and individuals having a similar purpose; and

CONCEPTION AND ORGANIZATION

there and then "The New York Farmers" came into being.

The gentlemen who participated in the meeting at Mr. Burden's, together with those who were elected at the first formal meeting, held at the Union League Club February 14, 1882, are herein styled the "Founders," and their names appear under that title. The Association, thus modestly initiated, will complete thirty years of active life during the coming winter. The membership has included many men distinguished in the walks of civic life, and known for their valuable contributions by personal experiment and study to the science of progressive farming. They have discussed with the interest and intelligence of practical men a vast number of the subjects that relate to the cultivation and the enrichment of the soil, the manufacturing and marketing of its inanimate products, and the breeding and perfecting of domestic animals. They have listened to and recorded the opinions and experiences of many distinguished professional and scientific men addressing the Association upon subjects of which the speakers had especial and expert knowledge. They have distributed annually the fruit of these discussions and addresses, in pamphlet form, to the agricultural colleges and societies, to the farming papers and periodicals, and to the public libraries throughout the country. The publications have been of a character that has gained for them serious consideration and often-times flattering comment, and which has lifted the work beyond the category of the dilettante or ornamental, and given it high rank as a valuable and practical factor in the upward evolution of farm management.

Looking back over its history of nearly one-third of a century spent in the continuous, unbroken pursuit of a worthy object, closely connected with the welfare of our country, while fully con-

CONCEPTION AND ORGANIZATION

scious that it has exerted but a modest influence, and claiming nothing more than the approval which every worthy and public spirited effort commands, regardless of its magnitude, the Association feels that justice to those members who aided its deliberations greatly in years gone by, and who have now passed away, and as a well deserved tribute to those still with us who have for many years carried the standard, and as an encouragement to those who shall continue the good work when, as Emerson says in his Concord Bridge Hymn, "like our sires our sons have gone," makes it appropriate and wise at this time to compile a summary of the results of these years of affectionate labor. Such a compendium is now submitted, and it is hoped that in spite of brevity and omissions, in spite of inadequacy or defect, it will bring the pleasure of recalling happy memories of past associations and friendship to the older members, and to the younger an inspiration and encouragement to obey the Biblical precept "go thou and do likewise."

At the meeting of February 14th, 1882, the Farmers completed their list of Founders, adopted simple by-laws, declared the qualifications to be that "a candidate for membership must be a possessor of land and engaged in the economies of agriculture,"—elected officers, and resolved that the regular meetings should be held in January, February and December of each year. It was agreed that a subject for discussion should be selected at each meeting for the next meeting, and that in addition to the part taken by the Farmers themselves, the president should invite, from time to time, one or more guests who, by reason of professional knowledge or practical experience, could make valuable contributions to the debate. It was also arranged that the addresses and papers should be recorded by a stenographer for permanent preservation, and for publication in pamphlet form, primarily

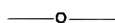
CONCEPTION AND ORGANIZATION

for circulation among the members and their friends; that the meetings should be held in the evening, the members and guests dining together, and the discussion for a couple of hours, following the social meal.

During the many years that have elapsed since then, this simple routine has been followed without material change. Many distinguished men, as members or guests, have joined in these deliberations, as has been previously noted, and the value of their contributions may be judged by the reader from the synopsis which follows, as we accompany the Farmers through their thirty years of delightful reunions, reunions always novel, always educational and profitable, in the highest sense, and always enjoyable, except when momentarily saddened by the loss of some cherished companion and friend, withdrawn by death from the little circle.

Having thus established their foundations firmly, but with slight conception, perhaps, of the value of the fruit which should be borne from the seed then planted, the Farmers selected for their discussion at the December meeting the question "How is the Eastern Farmer to compete with the Western Farmer?" and so ended their first meeting, "the day of small beginnings," but pregnant with much that was vital and momentous.

1882-83



With pleasant anticipation of their young enterprise, the Farmers met for their first serious discussion on the evening of December 18th, 1882, and after electing a few additional members, proceeded briskly to their object. They had as guests Dr. J. R. Sturtevant of the New York Agricultural Experimental Station, and Mr. Edward Burnett, of Southboro, Mass. The latter had distinguished himself, even at that early day, by obtaining highly satisfactory results as a gentleman farmer, and soon became a member of the Association, of which he continued to be one of the most practical and valued assets. Mr. James A. Burden who, as president, presided, and who may truthfully be styled the father of the Association, said a few words which deserve quotation here, describing as they do, both the good natured sarcasm and disbelief which greeted the announced purpose of the Association, and also the large pecuniary interests of the Farmers in agriculture and the serious purpose that animated them. He said "One of our friends has suggested that this Society should be known as the 'Fifth Avenue Farmers' and I have been asked if we have our turnip fields and our hay fields in our back yards. To such inquiring friends I have said that if they were to pay our

✓ farming bills for awhile they would be induced to believe that our acres exceed our back yards. I believe we are quite as anxious as the most energetic of working farmers to show a good balance on the right side of our farming accounts; and when we do not succeed in this, I think our farming neighbors, at any rate, profit by our experiments." In the last remark lies the germ of much of the benefit which the Association, during its long life, has bestowed upon American agriculture.

Dr. Sturtevant, speaking to the subject of how the Eastern farmer could compete with his Western confrere, called attention to the growing importance and dignity of farming as a profession, and worthily defined the phrase "gentleman farmer," freeing it from the suggestion that caste, aristocracy or wealth, is implied by the title. He said "As I look about the board I cannot but realize the changes that modern times have produced, and cannot but recognize the prizes that are in store for the pursuer of agriculture who brings to the soil a ripe intelligence and a recognition that the honor lies in the man, and it is the man that ennobles his work. The ideal of the present farmer is the country gentleman, a man who directs muscle by his intellect, and whom the close communion with nature has made a gentleman farmer, the man who brings refinement and education to the profitable working of the farm. The gentleman farmer, God bless him, is a public man. His body cannot contain his great soul, and a portion of his manhood must go forth to do proselyte work for those who have not as yet attained his standard and whom he would educate away from the twilight of progress into the sun of prosperity. The gentleman farmer is not rated according to his wealth, but according to his nature."

✓ Mr. Burnett described intensive dairy work as opening a fair competitive base for the Eastern man, and gave his

results from the centrifugal machine, stating that he was the only farmer in the country then using it in a large business way. He was then handling by this method 6000 pounds a day. It is historically interesting to know that to a Mr. Weston of Boston, is due the invention in 1868; he was followed by the Germans, and Burnett first applied it practically in this country in 1879. Mr. Cannon gave an account of the vacuum process, the reverse of Mr. Burnett's centrifugal, and Prof. Chandler described the health laws of New York relating to milk, and the protection thereby afforded to children. It should be added here that the passage of these laws was due chiefly to Prof. Chandler's investigations and efforts. Other members gave their experience with Jersey, Ayrshire and Holstein butters, their character and keeping qualities, and it was noted that Dutch butters were so remarkable in the latter, that as much as two centuries ago it was sought by the navies of Europe as "sea-going" butter.

In treating of "Sorghum" at their January, '83, meeting, the Farmers developed some little known facts worthy of preservation here. Professor B. Silliman of New Haven, and the Hon. George B. Loring, Commissioner of Agriculture, were the guests, and the former said in substance: No plant which has been introduced here since the Revolution, other than sorghum, has been deemed sufficiently important to be mentioned in the census. It has as venerable a record as wheat and barley. Sir George Campbell, many years Governor General of Bengal, told the speaker that sorghum, and not rice, was the principal food of the people of India and their animals. The United States investigated it in its ancient home in China in 1854, and found that they never made sugar from it, but used it exclusively as a cereal; in Japan, on the contrary, it has been grown for centuries for its sugar product. Commissioner Loring dwelt at

length upon the blessing of our division of land among a multitude of small owners, and the law governing its sale, transfer and record, known as the commercial tenure, by which real estate can be passed from hand to hand as easily as personal property. He compared our easy subdivision methods most favorably with the land conditions of the old world and declared ours to be the great solvent of all social and civil evils.

The February meeting found the Farmers discussing "Butter." The speakers were Professors Chandler and Caldwell, Mr. Edward Burnett and the Hon. George B. Loring. Their remarks covered a wide range, from the chemical analyses to the methods of raising, extracting and handling the cream. The characteristics of the various breeds of dairy cattle were described, and the butter making customs of Holland, England and the United States. The discussion was shared by the members, a number of whom had experimented with the various breeds of cattle, and devoted much labor to the scientific methods of producing pure, high-grade butter. Their conclusions may be summarized by assigning as the chief factors in richness and flavor, the kind of feed and the indefinable but well recognized butter-fat-producing elements of the individual animal.

"The Cattle Ranches of the Far West" was the subject for the last meeting of the season in March, and the principal addresses were made by Mr. Thomas Sturgis and Mr. James T. Gardiner. The former described at length the character of the country of the great plains, the vast herds of domestic cattle which had succeeded the buffalo in their inheritance of the grazing area of the arid regions, the methods of round-ups and shipping to market, the breeds employed for the improvement of the native stock, the protection of ownership by brands and by a widely-extended system of inspection. He dwelt upon

the necessity for sanitary inspection by the national government at the ports of entry, of all animals brought from abroad for breeding purposes, of all animals and carcasses shipped to foreign ports, and of all animals in transit from one state to another. It should be noted here that this was the beginning of the propaganda for excluding from our country the so-called exotic diseases of cattle, sheep, and horses, by which Europe and Australia have seen their herds and flocks decimated. The speaker and his Western associates, supported by a few far sighted Eastern men, devoted three years to convincing Congress ✓ of the necessity for national legislation on this subject. They were vigorously opposed by the states rights element in Congress, who deprecated all intervention by the national government, but they were finally successful. They drew up and secured the enactment of the law creating the Bureau of Animal Industry in the Department of Agriculture, and also the adoption by the Treasury Department of the quarantine laws. The former has expanded into a bureau of great size and importance, and has stood for twenty-five years as an impregnable bulwark between our millions of domestic animals and their less fortunate confreres across the oceans. Health has been insured to our animals, purity of food to our people (excepting such possible perversion in the process of manufacturing as may have occurred, and which is foreign to our subject), and prosperity, in a broad sense, to the live stock industries. The quarantine regulations have been vigorously enforced during all this period. The Farmers may well be gratified that they were present at the birth, and lent the might of their influence to a movement that has been of national interest and beneficence.

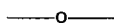
Mr. Gardiner spoke of the geological and climatic conditions of the plains, the high winds in winter sweeping

1882-83

away the dry snows, and the growth of the nutritious wild grasses unaffected by drought.

General U. S. Grant, a member, spoke interestingly of his early life on the plains, and cattle experiences during his army career and following the Mexican War.

1883-84



On assembling in December, 1883, Professors N. H. Egleston and Wm. H. Brewer, and Mr. W. A. Stiles, Col. LeGrand B. Cannon and Senator Warner Miller, spoke on the subject of "Tree Culture and Forestry." In this later day, when the conservation of our national resources has been widely advocated from the White House, and when its vital importance is universally recognized and testified to by conferences of governors and conservation leagues and congresses, it is interesting to note that twenty-seven years ago this small body of gentlemen, of private life but of public thinking, sounded the key note of the struggle against forest destruction and uttered a warning in no uncertain tones. They drew their similes from other countries of older civilization than ours, countries in which the result of the destruction of earlier centuries is being laboriously and slowly replaced by the tree planting of the present one, and countries in which the denuded hillsides (the soil washed away when deprived of the trees, its natural protectors), can never be re-forested, and they urged their countrymen to pause in time in their suicidal course, and not transmit to coming generations an impoverished birthright. It was many years before the seed of intelligent foresight thus

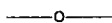
planted bore fruit. The spirit of commercialism was predominant, the land and its product to the first possessor, let posterity care for itself, was the spirit, and much destruction that is irretrievable took place. But to-day the Farmers can rejoice to see the country practically a unit for the wise policy they advocated in 1883. Government reservations, protection from fire, and replanting, are now the order of the day.

Turning their thoughts to "Meadow and Pasture Grasses" in January, 1884, the Farmers listened to Professor Brewer of New Haven, and to some peculiarly valuable experiences from Messrs. Cannon and Havemeyer. The creating and preserving of pastures, the history of European effort, the natural pastures of our own West, and their rapid destruction by overstocking, were vividly depicted by Prof. Brewer; Col. Cannon described a five-fold crop rotation with the result of increased fertility, and Mr. Havemeyer recounted his experiments with ensilage. The last named deserves more extended notice. As is well known, ensilage is composed of the crop cut when green, then stored in a pit, or building, under heavy pressure, and allowed to ferment slightly. Thus prepared it is fed in lieu of hay, and even replaces grain to some extent. The cheapness, joined with its large percentage of utility, commands attention. In place of two tons of hay previously grown on an acre, Mr. Havemeyer raised on the same acre thirty-three tons of ensilage fodder. He calculated two and one-half tons of ensilage to be the food equivalent of one ton of hay, consequently the acre gave fourteen times the food product in the form of ensilage that it would furnish in hay. Although disclaiming originality, and alluding to its prior use in Germany, Mr. Havemeyer was really one of the pioneers of ensilage in the United States. His results were widely published and were an important factor in the general introduction,

1883-84

which soon followed throughout the country, of this valuable process.

1884-85



The beginning of the season was marked by two incidents which were sources of regret to the Farmers. Mr. Burden declined a re-election to the presidency, and General Grant's health compelled him to cease his previously regular and active participation at the meetings. To Mr. Burden perhaps more than any other was due the conception of the Association, and much of its success in its early years was due to his happy mingling of good sense, energy and optimism. He had the capacity for bringing together congenial minds and inspiring them with his own enthusiasm. The writer made his first address to the Farmers at Mr. Burden's request, and recalls with pleasure the long friendship that followed, and with gratitude, his many kindnesses. Though declining to continue to preside, Mr. Burden remained until his death an active, interested, and highly valued member. Upon learning that the nature of General Grant's illness would prevent his regular attendance, it was voted that he should be declared an honorary member for life, and the General expressed the great pleasure that this kindly act of his old friends gave him.

Col. Cannon succeeded Mr. Burden as president, Mr. Samuel Thorne having declined an election, and at the

meeting in December, '84, introduced Mr. E. F. Bowditch to speak on the subject of "Horse Raising in the Eastern States." At this later day, when this breed has been for many years a recognized standard for draft horses, it is interesting to note that the Percheron was then new in this country, and that his merits were so quickly published by the Farmers. The results obtainable by crossing, the cost of raising the colt or filly, the market value at two years of age, true methods of shoeing, and the wisdom of early breaking and gentle handling, were dwelt upon by the speaker and by Messrs. Cannon, Lawrence, F. R. Rives and Bronson, each lending his personal experience as a breeder to the discussion, and Col. Cannon paying a deserved compliment to Mr. Rarey, whose subjugation of the vicious stallion Cruiser, and the equally dangerous gelding Peacock, at about that time, will be recalled by our older members. Rarey's method was the substitution of firm, but kindly, discipline for the prevailing harsh and brutal treatment. He gained the animal's confidence instead of arousing his fear. Mr. Rives in an illuminating address of some length described the improvements then recently secured by judicious breeding in the cavalry mounts of European armies and touched upon the several types. He ascribed to the Emperor Napoleon III the policy which greatly improved the French stock, and stated that the chief medium therein had been the English thoroughbred. His visits to Yorkshire, the greatest of English horse breeding counties, aroused his admiration of the Cleveland Bays, and he quoted General Lamoriciere, of the French service, in marked compliment to the Scotch Clydesdale. He believed the depression in the horse breeding industry in our Eastern states largely due to the farmers' course in breeding for trotting speed only, without regard to size

or figure; something we should now, in our terse phrase, call "risking everything to breed a winner."

"Sheep and Sheep Husbandry" engrossed the Farmers' attention in January, '85, and every feature of the industry was exhaustively treated by Messrs. Wood, Woodward (of the *Rural New Yorker*) and Hayes, from practical standpoints, and was closed in humorous vein by the Hon. Wm. M. Evarts, ex-Secretary of State to the United States. The raising of sheep for mutton, their proper feed, the feasibility of putting lambs that would dress thirty pounds into market in February and March, the famous Down mutton breeds of England, the antiquity, safety and profit of the business were set forth by the first two speakers, and the growth of the wool industry, its wide distribution through the states, its manufacture and the cheapness of production of clothing incident to the improved machinery and marvelous amount produced, were minutely set forth by Mr. Wood. Mr. Evarts, referring by inference to his college diploma, said that though his first "sheep-skin" had been expensive in money and labor, still he felt that it had yielded more than an ordinary return in the years that had succeeded, and confessed that as between the two branches, while others might prefer the mutton, he usually "went for the fleece." To keep an eye on so aggressive a neighbor, the Farmers promptly elected Mr. Evarts a member.

With a genuine catholicity of interest February found the talk centered around "Grape Culture and American Wines," a subject perhaps beyond the range of the average farmer, but becoming of great interest in the states of New York, Ohio, North Carolina, Missouri and California, the influx of settlers from the wine making sections of central Europe having given it a marked impetus. The speakers were F. W. Luttgen, Esq., who reviewed the experiences of California; Mr. Reemelin of Cincin-

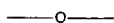
nati, who dwelt upon the effect upon the wine industry of the attitude toward it of social life in this country; and Professor Collier of Washington, in charge of the chemical division of the Bureau of Agriculture, who treated the analytical side of the question. Among other interesting facts brought out by Col. Cannon, it appeared that while in 1870 our imports were larger than our domestic production, fourteen years later less than twenty per cent. of our consumption of wines was of foreign manufacture, the domestic supply having risen to the annual figure of 28,500,000 gallons.

The fact is sometimes lost sight of that while Europe produces the most famous wines, the amount of this grade is comparatively small, while the wines drunk by a vast majority of her people, other than the wealthy classes, are of very ordinary calibre. The great Thun of Heidelberg, with its capacity for holding 350,000 bottles, probably furnished the nobles and their retainers a thin acid mixture, which would have justified the remark of Prince Eugene of Savoy to the burghers of Reutlingen. Having bravely emptied the first goblet offered to him, he declined the second, saying frankly, "Excuse me, I would rather takè the fortress of Belgrade again than drink another cup." The moral or ethical side of the question of wine drinking exerts an influence in this country unknown in the same degree elsewhere. We have extensive and varied legislation and police regulations, we have a public sentiment, and often in a family diverse opinions. "Commercial" grape farming, the American craze for many acres and large tonnage, was discouraged as inconsistent with high standards of quality, and the German Wandelehrer was commended, the practice of spreading the information gained by such associations as our Farmers through travelling members or representatives visiting the wine districts. Prof.

Collier stated that he had analyzed the wines from eleven states, 184 in all, and that they included 71 red, 52 white, 15 champagnes, 3 brandies, and 43 sweet wines. The number shows a steady and increasing demand, beneficial in the broad sense as indicating the substitution of this milder beverage for the heavier alcoholic liquors.

At their March meeting the Farmers "went a'fishing" and had as guests Messrs. R. B. Roosevelt and Eugene Blackford of the State Fish Commission. As an outcome of the discussion the Chair appointed Messrs. Jay, Rives and Chandler as a committee to act with the Fish Commission in an effort to obtain from the Legislature such larger authority for the Commission as would increase its powers of usefulness to the people of the state. The speakers described the numerous valuable breeds of fish native to our waters, both salt and fresh, the policy and methods of stocking and restocking them, the limitations necessary to protect the fish at certain seasons, and the food required whether natural or artificial. The work of the national government in various states, under the management of Prof. Spencer F. Baird, was outlined and the immense importance of bringing this excellent and low priced food supply within the reach of our inland people by stocking their waters with good breeds was convincingly established. The moral of the evening was "benefit by Nature's fecundity and cultivate your waters as well as your land."

1885-86



December, 1885, found the Farmers entering upon another season whose evenings were to be devoted to a "feast of reason and a flow of soul." Mr. Francis R. Rives had been elected president, Col. Cannon retiring with a unanimous expression by the members of their appreciation of his services. He had brought to the position of presiding officer unusual qualifications. To the experience of a long and active life, marked by business success as a railroad builder and owner, and distinguished by patriotic service during the Civil War, in organizing troops and in active service as a soldier in the field, he added a love of the country and its peaceful pursuits, which amounted to enthusiasm. To follow the old precept and to make two blades of grass grow where only one grew before, seemed to him a wise and noble ambition, and on his farm in Vermont, overlooking Lake Champlain, he for many happy and useful years "proved his faith by his works." Applying their attention to affairs of general interest to the people of the state and nation, the subject selected for the evening was "The Preservation of Game." Senator George F. Edmunds of Vermont, spoke of the great value to the farmer of the birds which destroy injurious insects. He was followed

by ex-President Chester A. Arthur, and he by Mr. Thomas Sturgis, who described the various kinds of wild game animals of the western plains and mountains, the difficulty of preserving them in the presence of the wasteful and destructive use for food and profit by the frontier settler, and the impossibility of getting proper legislation in the absence of any sentiment in favor of the animal or of thought for the future, on the part of the Western legislatures. Col. Cannon quoted Dr. Goldsmith, an expert on European game laws, as authority for the statements that the game rights of Scotland yielded thirty-one cents per acre annually over its entire area, and further that the effect of the game laws of Germany was to make venison cheaper than mutton, the deer increasing as rapidly and costing nothing. The odd paradox was mentioned that dead game is property in this country, but live game (unless in preserves) is not. Senator Edmunds added that the instinct against feudal customs led Vermont to put in her constitution the right to fish and hunt on all lands not enclosed, which provision embarrassed the passage of game laws for years.

Returning to their own specialties in January, '86, President Rives opened the discussion by pronouncing "the feeding of cattle a subject of the first importance throughout the length and breadth of the land." He attributed much of the success and magnitude of this industry to our bountiful crops of maize, Indian corn. Times have changed since the English traveler, amazed at the extent of the Western corn fields, asked a settler what could be done with it all, and received the laconic answer, "Well, stranger, except what little is wasted in bread, it's all made into good whiskey." Mr. Atkinson, the well-known statistician of Boston, followed with estimates of the cost of living and of the various items of the ordinary dietary. Great stress was laid upon scientific

feeding, warmth to prevent the waste of food in developing heat, and sufficiently nitrogenous grain to produce the proteins. The use of the silo and the providing of phosphates and nitrogen for our soils was the theme of Prof. Atkinson's address, and Col. Cannon, from his own experiments, gave to ensilage of corn the first place as a beef producer.

Stating that the value of the annual egg crop was twice that of our annual production of silver, and that the value of eggs and poultry combined was more than the annual value of our silver, pig iron and wool, the President introduced in February the subject of "Poultry." The speakers were Mr. Philander Williams of Taunton, Mass., President of the American Poultry Association, and Mr. H. S. Babcock. The discussion was shared by many members, and questions as to the best breed, and best feed, for laying, for broiling, for capons, were practically answered. The fact that in the year then current our people had imported 16,000,000 dozen eggs at a cost of about \$2,500,000, led to an eloquent plea for protection for the American hen against the competition of the pauper hen labor of other countries. The standardizing of the various breeds was strongly urged as a safeguard against deterioration. Nothing was said of the Guinea fowl, but in the years that have passed since the evening we are describing, the Guinea has become a staple and profitable product of many farms.

1886-87

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"Subsoil Drainage" engaged the attention of the Association when they met to open the winter season in December, '86. In his prefatory words President Rives alluded to the great importance of drainage, not only to the products of the soil, but to human health, and said that the lack of it was the primary cause of typhoid and malarial fevers. As an expert on the subject, he presented Mr. George E. Waring, whose work was even then so well known and admired that he did not need an introduction to the Farmers. Beginning at Newport, Rhode Island, and ending his career in giving sanitary conditions to Havana after the Spanish War, a devotion which engendered the disease that ended fatally, Waring pursued throughout a life of great intelligence and activity, the subject of drainage in all its forms and applications. From the relieving of farm lands of excessive and inert water to the harmless handling and distribution of the waste matters of households, villages and cities, he was *facile princeps*. He was the first to demonstrate the oxidation of sewage by bacteria, when exposed to the action of the air; and he not only taught us how to dispose of dangerous waste substances, but how to convey and convert them into a soil regenerator. A modest synopsis of

much of this was contained in his remarks. Mr. Henry C. Meyer of Cincinnati, gave interesting statistics of experiments abroad, and was followed by Prof. Chandler, who enlarged upon the spontaneous purification of running streams. This also is credited to the useful and philanthropic bacteria. It appears, however, that they only act near the surface, and it should be carefully noted that their remedial action does not apply to wells.

Five years of pleasant association had passed when the Farmers met in January, '87. Some vacancies in the ranks had occurred and a number of well-known men had become members. To admit a larger number to the pleasure of participation in what was becoming known as a unique and valuable school of agriculture, the membership had been increased to fifty. With keen interest in the many unexplored fields before them they took up, on this occasion, the practical matter of "Fertilizers." The principal address was made by Dr. C. A. Goessman, of the Massachusetts Experimental Station at Amherst. The speaker emphasized first the need of knowing the constituents of the soil, then the natural fertilization by ploughing under of green crops, with an account of those crops used for this purpose in the different states, and then described the nature and appropriate use of commercial fertilizers. The address should be read to grasp the full value of the scientific research and experiment. Of the members, Messrs. Schermerhorn, Bronson, Borland and Cannon, gave the results of their experience which comprised much valuable data. Of the home made animal manures, that of the sheep was rated highest, followed by those of the horse, pig and cow, in that order of value.

Following in natural sequence the last subject, the "Rotation of Crops" was on the "tapis" in February, and Dr. L. E. Sturtevant, Director of the New York

State Experimental Station at Geneva, opened the discussion. Illustrating the truth that there is nothing absolutely new, and complimenting that wonderful people, "the Ancients," the speaker said that we have accurate records of crop rotation several hundred years before the Christian era, and that the old Roman agriculture and those of India and Japan in almost prehistoric times "produced the very best results of which the land was capable." Deep ploughing, its value and its limitations, was discussed and the success of the famous Norfolk County, England, rotation of clover, wheat, turnips, barley and oats was explained by the fact that each variety of these plants draws its sustenance from a different strata of the soil than the others. Dr. Wm. Everett, of Quincy, Mass., spoke interestingly of the great importance of attaching the young men to the farms, and said that he saw in the work of the Farmers about him the creation of an interest in the problems and in the possibilities of return for intelligent agriculture that would go far towards accomplishing this object.

Having thus considered how best to *produce*, the Farmers, in March, turned their thoughts upon how best to *protect*, and listened to the views of Prof. Riley, the head of the Entomological Commission of the Department of Agriculture, on "Injurious Insects." Selecting the enemies of shade trees for attack, the speaker told in detail of the most dangerous varieties, their modes of incubation, their destructive habits and the best method of defence against them. Our space does not permit a recitation, but it is important to know that the latest information and directions can be always promptly, and of course gratuitously, obtained from the Department of Agriculture at Washington. The speaker was followed by Dr. J. A. Lintner, who addressed himself to that branch of the subject represented by our grain and fruit crops.

1886-87

The magnitude and importance of it may be partially conceived from the official statement that at that date 350,000 varieties of insects had been classified, a good proportion of which are injurious to vegetation, and that of these, 156 varieties attack the apple only.

1887-88



Being thus mentally armed against their insect enemies, the evening of December, '87, was given to "Fruits such as Farmers Grow, and their Cultivation." President Rives, with some happy remarks, introduced Mr. Wm. C. Barry as a high priest of Pomona. The standard fruits, from apples to apricots, and from cherries to currants, and the best varieties of each, were named, with a word as to choice of location and method of treatment in each case. He was followed by Capt. Lloyd of the British Grenadier Guards, who was seeking an American remedy for the depression in farming interests as applicable to his 5,000 acres in England. Many members joined in the discussion, and Mr. Depew closed the evening with a speech of wit and wisdom. The head of the Agricultural Bureau was not, at this date, a member of the President's cabinet, and it is interesting and due to the Farmers to note that the Commissioner stated to one of our members that he thought the strongest argument for raising his office to the Cabinet lay in the distribution of the "Farmers'" volumes of their discussions among members of Congress.

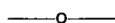
In January, '88, the Farmers returned to the "Feeding of Cattle," but this time not for porterhouse steaks, but for milk and butter; Mr. Edward Burnett, Major H. E.

Alvord and Dr. Lewis E. Sturtevant, from their store of many years practical experience, gave their opinions upon breeds, care and feed rations. Mr. John Meyer described his making and feeding of ensilage, and Mr. Bronson and Mr. Havemeyer added useful comments for their fellow members. Mr. Joseph Choate added the humorous touch to the evening's work by asking for a report from the banking and railroad members as to whether they had not found the *watering* more profitable than the *feeding* of *stock*.

Feeling that the porcine family had thus far received no attention while a large number of our people look to "hog and hominy" as the staff of life, the "Feeding and Breeding of Swine" was the subject selected for February.

The addresses of the evening were made by the members exclusively, among whom Messrs. Borland, Bowditch, Cannon, Chandler, Havemeyer and Otis gave many interesting details of breeds, of feeding and of disease, drawn from their farming experience. The analysis of the best ration was given, and the question of raw versus steamed food was thrashed out. Mr. Bowditch quoted the Chinese claim to have had the domesticated pig 4,900 years and that Vaubran calculated the produce of one sow, raising two litters a year and breeding eleven years, to be about 6,000,000, a fair guaranty against "race suicide." The natural tendency of the pig to be a clean vegetable feeder was vouched for. The subject of disease was deemed so important, in view of the presence of hog cholera throughout the country, that it was determined to invite professional and scientific counsel for the next discussion.

1888-89



Before proceeding to the evening's discussion in December, two committees were appointed upon the motion of Mr. Jay. The first consisted of Messrs. Chandler and Clift with the President to consider the formation of a Club Library, and to consult with the trustees of Columbia College as to an alcove for this purpose. The second committee, consisting of the guests of the evening, Drs. Salmon and Hopkins, and Prof. Chandler, was instructed to consider and report measures for enlightening the public as to the importance of the contagious diseases of domestic animals, and to prepare memorials on the subject to the National and State Legislatures.

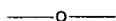
In the discussion that ensued Dr. Salmon described the character of the communicable diseases of our domestic animals, many, if not all, of which have come to us from the Old World. He recounted the efforts of the U. S. Bureau of Animal Industry, of which he was the head, and which, as previously stated, owed its existence in part to one of our members, to prevent the entrance of disease and to isolate and eradicate it when discovered. These measures had been in a great degree successful, none of the graver diseases having become established here. The magnitude

of the work was shown by the fact that in the eleven months preceding the meeting, the Bureau had thoroughly inspected 305,280 animals and made 43,176 post mortems. Dr. Hopkins dwelt upon his veterinarian experience in New York and in the West, spoke at length upon glanders, farcy and the "maladie du Coit" in horses, and eulogized the Legislature of Wyoming Territory as having been the first Western state to pass quarantine laws and provide for a state veterinarian. But for this, he said, contagious pleuro-pneumonia would have reached the unfenced ranges and become a permanent source of loss, as it is in Australia.

In January, '89, the subject was "Farm Structures and Fences" and much information was elicited from Messrs. Burnett, Rives and Post among the members, and the guest, Mr. George E. Waring, as to material, plan and scope. Small non-absorbent brick or cobble stones were strongly endorsed for flooring of stalls for horses as minimizing the probability of strains from slipping, and as giving a healthy pressure to the frog of the foot.

Upon the principle that "variety is the spice of life" and that "all work and no play makes Jack a dull boy," the Farmers took up for their last meeting for the winter, in February, "The Pleasures and Pains of Farming." Contributions were made by Prof. Wm. Everett and Messrs. Depew and Barnes, and amid the humor of the occasion many a true word was spoken in jest.

1889-90



A phase of the ever present "transportation" problem in the form of "Country Roads: Their Construction, Improvement and Maintenance" was selected for the annual meeting in December, '89. Convinced that the existing country roads were a heavy handicap to the farmer in getting his produce to market, and that we were lagging unjustifiably behind our European neighbors in this regard, the Farmers appointed a committee consisting of Messrs. Jay, Otis and Sturgis to prepare and present a memorial on the subject to the Legislature. It may be properly added here that the committee performed its task. Mr. Otis was unable to join their deliberations, but Messrs. Jay and Sturgis devoted much time to the examination of the road systems of France, Belgium and Switzerland. In a report formulated by the latter, the committee recommended that legislation be asked classifying the roads of the state into three grades, viz., State, County and Township roads; that the state engineer should map a permanent road system which should be adopted and worked out by degrees during coming years; that a high standard of construction should be adopted and adequate provision be made for annual maintenance as not less important than original construction; that the first class should be built and maintained by the state,

the second class by the state and the counties, and the third class by the counties and the townships. These were the main features.

This report was presented to the Governor and to the Legislature, and, it is believed, was the initial impetus given to the improved road question in this State. While its suggestions were not adopted in toto, being broader in scope than public opinion was prepared for, they were adopted in part, and in so far formed the basis for, and were the incentive to our existing road laws and policy. Had the New York Farmers accomplished nothing in their long career other than this beneficent work, the generations yet to come "should rise up and call them blessed."

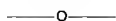
In opening the discussion President Rives spoke interestingly and practically of the roads in Dutchess county and of the shortcomings, not to say folly, of existing customs of pretended repairs, and then introduced Mr. Parsons, the well-known Superintendent of Central Park in this city, who was followed by Prof. Wm. P. Trowbridge. The necessity for road *building*, in a masonry sense, was enforced by both gentlemen, and not less so the necessity for prompt and systematic repairs. The names of the great road makers were invoked, Telford, MacAdam, Macneil, Nimmo and others, and instances of admirable individual effort were cited in detail. The annual expenditures of European governments upon road maintenance were quoted and the necessity of state action emphasized. Mr. Bronson gave a very interesting account of the construction by him of a mile of public road near Fairfield, Conn., partly as an object lesson to the people. Its success was so marked that the authorities had annually appropriated funds since then for its maintenance and extension. A few appropriate words from the Rev. Henry C. Potter, Bishop of New York,

closed the discussion. The Bishop reminded his hearers that before the Christian era there were 4,000 miles of good roads between Scotland and Antioch over which one could drive at fifteen miles per hour, unbroken save by the English Channel and the Hellespont. The triumphs of civilization are coincident with the triumphs of roads.

A purely American subject, "The American Trotting Horse," faced the Farmers as they gathered together in January, '90. Vice-President Jay, in opening the evening's work, alluded to Imported Messenger, the sire of American trotters, and quoted Hiram Woodruff, the famous driver, as saying that when Messenger landed one hundred millions in value came to our shores. A number of noted horsemen spoke, among them Mr. S. D. Bruce, of the *Turf, Field and Farm*, Mr. Peter C. Kellogg and Mr. James Wood, President of the State Agricultural Society, and extremely interesting letters from Mr. C. J. Hamlin of Buffalo, and Mr. Robert Bonner were read. Mr. Bonner, who owned a number of the famous horses of his day, was a keen student of horse anatomy. These letters will repay perusal.

In closing the season with the February meeting, the Farmers turned to the lighter side of life as illustrated by "Landscape Gardening." Mr. Vaux, who developed the scenic side of Central Park, spoke of the wonderful possibilities of perspective, form, and color which Nature affords in our country homes to the taste that knows how to realize them, and Prof. Goodale spoke upon the necessity for judgment in choosing the best sides and exposures for future improvement.

1890-91



The "Reclamation of Waste Lands" was the opening topic of the season in December, '90, and again Mr. Burnett shared the result of his practical experience with his fellow Farmers. The breaking of stony land, the tiling of wet land, the clearing out of stumps and underbrush, were all vividly portrayed, with judicious comments on the best type of tile and the handling of the tussocks. Col. Cannon, from the Chair, spoke of the impoverishment of land caused by denuded hills and consequent lack of moisture, and in closing, introduced Mr. Verplanck Colvin as an expert on the Adirondack region. The speaker touched upon his efforts to secure to the state that great park, and the industrial value of the waters that issue from it. Mr. Sherman J. Knevals, President of the Forestry Commission of the state, further accentuated the direct relation between the destruction of mountain forests and the resulting waste lands adjacent to them. General Bristow of Kentucky added a few words as to the preservation of the forests and game of the Yellowstone National Park.

It appears that the Farmers had still an unsatisfied appetite for the "Feeding of Cattle," and in January, '91, we find them again reverting to it and this time in its rela-

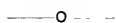
tion to dairy herds. A very interesting discussion followed, led by Mr. Havemeyer, who produced and read many schedules of food rations with the results in milk and butter, and these were compared with the rations used by Mr. Moulton. Mr. Havemeyer had been brought up in a business requiring the closest attention to details of cost of production as compared with the finished product, and he applied the methodical habit of his trained mind with equal zeal to his dairy operations. A profit to be an actual profit in his estimation must have borne unflinchingly every deduction for labor, material, interest and deterioration which a cynical neighbor Farmer could bring against it. His statistics, given at length in our volumes, will never lose their value to our dairymen. Nor should it be forgotten that to the skill and the patient, intelligent and assiduous labor of our other fellow member, Mr. Mayer, the securing of the results tabulated by Mr. Havemeyer, were in great part due. The meeting proved to be one of the most valuable thus far held, and the contributions of Mr. Appleton and Mr. Havemeyer form as reliable a reference for dairymen to-day as when given twenty years ago. Mr. Appleton was asked to give the history of his famous cow, Eurotisama, "the most distinguished butter making cow the world has seen," and responded with full details of food and butter results. This remarkable yield was 945 pounds 10 ounces in one continuous year.

In response to the President's request, Mr. Thomas Sturgis spoke at some length on the fattening of cattle in the West and the various foods and by-products used, and Col. Cannon gave his similar experience in Vermont.

As a pertinent sequence to the food session in January, "Fodder Crops" were taken up in February. Col. L. S. Hardin of Kentucky, was the first speaker and compared

the merits of the various fodder foods, giving the highest place to corn ensilage. Starting with the ideal fodder, green clover, he followed the series of timothy, oats, rye, barley, cow peas and corn, and brought out the fact that corn ensilage can be preserved for years and that Mr. Mayer was then using ensilage put down eight years before, and finding it more valuable pound for pound than that of one year ago. Mr. Edward Atkinson of Boston, who followed, departed a little from the subject, and after discussing the unnecessary waste of food products for human beings, exhibited a small and ingeniously devised stove, capable of being placed upon a table, in which, by the heat of a lamp, all ordinary food could be economically and efficiently prepared. Major General Wilson, U. S. A., gave his experience with fodders for army animals throughout the country, and remarks by Mr. Beaman closed the last evening of the season.

1891-92



At the opening of the meeting of December 28, '91, the secretary announced the death of President Rives, which occurred in the preceding July. His loss was keenly felt by the Farmers. His personality endeared him to them, while his character and public services commanded their respect and admiration. His interest in this Association was enthusiastic and untiring, and his culture and eloquence gave dignity and importance to the meetings over which he presided.

At this time the first bound volume of the Farmers' Proceedings was brought out and distributed.

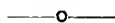
"The Best Breed of Horses for use on the Farm" had been chosen for the evening talk. The principal speaker was Dr. Joseph R. Hodgson, many members joining in the debate, and the Percheron Norman was declared par excellence "the king of draft horses." Care must be taken against over-feeding, especially when not in use temporarily. Neglect of this precaution produces azoturia, a fatal disease. The use of peat moss for bedding was highly extolled. It is cut from the bogs of Holland, Ireland and Germany. Mr. Lawrence spoke at length upon the qualifications to be sought in the ideal farm horse, the food and treatment, and commended highly the

Suffolk Punch, an animal whose ancestors carried the heavily armored knights of England to battle in the days of such giants as Edward IV and the Earl of Warwick. Members Wadsworth and Havemeyer recounted their trials of various breeds, and Mr. Sturgis gave an account of the draft mules of the West, their exclusive use in government service, their endurance and economy in support, which was corroborated by Dr. Webb.

The evening of January 19, '92, found the presidency filled by Mr. John Jay, who had succeeded Mr. Rives, and the subject "Arboriculture for the Farm, the Village and the Highway" brought forth a galaxy of distinguished men. Mr. Charles B. Eliot, the son of President Eliot of Harvard, outlined the method of adapting the selection of trees to the topography of the neighborhood and to the soil, and Mr. Gifford Pinchot, then a United States Commissioner of Forestry, and since then become the head of that department and a national character, described the principles that should govern selection, and in detail his work on a great estate at Biltmore, North Carolina. Mr. Samuel Parsons, Jr., spoke especially of the treatment of villages, and Mr. Lawrence contributed his experience in Massachusetts. The Hon. Charles A. Dana was then introduced. Mr. Dana had been one of the editors of the *Tribune*, Assistant Secretary of War during the rebellion, and in the "piping times of peace" a devoted arboriculturist and florist on his Long Island farm. He began with an eloquent tribute to President Jay, telling how the young lawyer in 1850 had defended a friendless fugitive slave in the courts of New York, and then commented practically on the shade trees suited to this latitude, and Mr. Depew closed the discussion with a further warning against the increasing denudation of forest lands.

In February, '92, the Farmers were reminded of the remark of a satirical Englishman, "Who ever reads an American book and who ever eats an American cheese?" and with a praiseworthy willingness to learn the truth of and the reason for the latter innuendo, they asked for information on "Foreign Cheese Making." Prof. Caldwell of Cornell University, Mr. B. D. Gilbert, Secretary of the New York Dairy Association, and Prof. Chandler of our own membership, were present to elucidate the subject. Our space does not admit of even summarizing the exhaustive accounts of the chemistry, conditions and methods of cheesemaking laid before the Farmers. One salient point seemed to be that the ripening process is the one upon which the flavor chiefly depends and that this always implies the presence of some harmless form of the omnipresent bacteria, commonly described, in this connection, as "moulds," from the mouldy appearance sometimes shown, as in Roquefort and Gorgonzala. It further appeared that many European cheeses are now successfully made in this country, and that English experts have acknowledged our Cheddar as equal to theirs. A fact working against our successfully producing a great number of the European cheeses is that our home market is our chief interest, and so long as it is satisfied with certain standard kinds, to venture into others entails a business risk. The government encouragement of dairy interests in Europe was also noted.

1892-93



At the first meeting of the season, December 20, '92, Vice-President Frederic Bronson presided. On account of the age and infirmities of Mr. Jay, the labor of securing speakers was for some years devolved upon Mr. Bronson and was performed with rare and exceptional ability. A gentleman farmer of the highest type, possessing the means to enjoy a life of leisure, he made the leisure a source of widespread benefit to the community in which he lived. To a liberal education he united a genuine love of the soil and of farming problems. His acquaintance and his sympathies were broad and he was able to reach and to secure the attendance of eminent experts to a degree far beyond what any of his Farmer associates could have accomplished. In the first ten or fifteen years of the existence of our Association his efforts gave it an impetus which cannot be overestimated. He established a standard and "set a pace" which the writer, who succeeded him in those duties and performed them for many years, always felt to be an inspiration, an example to be aspired to though it might not be always equalled.

In his opening remarks Mr. Bronson expressed the hope that the members would learn whether milk is a

means of conveying tuberculosis, and introduced Dr. J. S. Billings to speak on the subject of the "Diseases of Cattle affecting the Milk Secretion." The various diseases were described and their pathological effects, and the efforts which have been made to determine whether tuberculosis, typhoid, etc., can be thus communicated to man, were minutely recited. The consensus of scientific opinion seems to be that as the secretion of milk is not a straining through a cullender of food and drink taken by the animal, but is a real vital action in which certain particles of matter change their form and dissolve, throwing their contents into the secreting (milk) ducts, that the absorbing of disease bacillus as food does not primarily affect the milk; but if the animal itself becomes infected with the disease, its milk is at once unfit for food. Dr. Austin Peters, Inspector of Cattle for the State Board of Health, Massachusetts, and Prof. Chandler endorsed these views, also laying stress upon the extreme susceptibility of milk to become contaminated *after* leaving the cow, and attributing diseases of the above nature chiefly to the latter cause. The possibility of consumptive human beings conveying disease to cattle was affirmed. The discussion, on a subject so vital to our families, should be read at length.

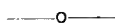
During the evening a letter from Mr. Jay was read in which he urged that the Farmers should enlarge their field of usefulness, and a committee consisting of Messrs. Cannon, Chandler, Stillman, Sturgis and Otis, was appointed to report on this subject. Mr. Jay also offered to donate to the Farmers fifty volumes of Reports of the Royal Agricultural Society with elaborate papers by English experts. The gift was accepted with an appropriate expression of thanks.

Nature's carpet for neglected soil, "Weeds: and How to Extirpate them," was the centre of interest when the

Farmers met in January, '93. The professional opinions were voiced by Prof. Byron D. Halsted, of the New Jersey Agricultural College Experimental Station, and by Prof. L. H. Bailey of Cornell University. To these were added the experiments of our members, Appleton and Burnett. The conclusion reached was that weeds, like the poor, "we shall have always with us." They are Nature's protection for her unprotected lands, a cover from the sun, an absorber of beneficent moisture from the air, and by their decay an enricher of the soil they grow on. The methods of weed-control may be summed up by saying, oppose one force to another, occupy the ground with some useful crop the whole year round and keep out the interloper.

The work of an experiment station is shown by its name, and the speech of Prof. H. P. Armsby, Director of the Pennsylvania State College Agricultural Experiment Station, at the February meeting, on the "Results Reached in Feeding Cattle for Milk and Beef," was in the nature of a report, giving an admirable account of the activities of his institution. He was followed by Prof. W. W. Cooke of the Vermont Agricultural Experiment Station. An elaborate paper by Dr. Collins of the New York Experiment Station was read, and members Appleton, Bronson, Sturgis, Barnes and Post gave the conclusions derived from their own work. To attempt to abstract from the valuable and exhaustive reports would be impossible, but it may be said in passing that well ventilated buildings, pure water, warm rather than cold, are essentials, and that after giving full consideration to all methods of steaming, boiling, grinding and other attempts to aid Nature's processes, it must be admitted that we cannot increase by these means the digestibility of food or its value to the animal.

1893-94



The refining influence of flowers upon the prosaic tendency of most farming pursuits was not overlooked by our members, nor the consideration due to the tastes of the ladies, and on December 19, '93, "The Culture of the Rose and the Chrysanthemum" came up for consideration. Many beautiful varieties were shown from the farms of our associate, Mr. Wm. Bayard Cutting, and of W. A. Manda, Esq., of Short Hills, New Jersey, and also an admirable collection grown by the boys of the House of Refuge near this city. Mr. John H. Taylor of Bayside, Long Island, introduced as being "the best grower in the neighborhood," spoke for the roses, and Mr. Manda for the chrysanthemums. Classifications, breeding, propagation, planting, soil, manures, structures and heating, were passed in review, and our members Underhill and Lawrence contributed many practical points. A most interesting address was made by Sir Henry Gilbert of England, who, with Sir John Lawes, was noted for his work in agricultural chemistry, and the evening ended with an eloquent appreciation of roses from their patron and lover, Charles A. Dana.

The subject of sugar production was becoming of great interest in this country when the Farmers met on

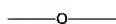
January 16, '94. The supply of cane sugar from Louisiana was small, and the combined imports from Havana, Cuba, and Java were insufficient to meet the requirements of our people easily. The beet sugar industry, started in France by Napoleon I, to give his country a home supply, had spread into Germany and at this date constituted one-half the world's production. Following these countries, it had been taken up here, and when the subject was considered by our members they were treating of a well established home industry producing 22,000 tons annually. In the talk that delightfully filled the evening, Prof. H. W. Wiley, Chemist to the Agricultural Department at Washington, recounted the progress made in this country and the present status of the industry; Mr. Moriz Weinrich, a celebrated beet grower of Austria, described conditions in Europe, and Mr. Havemeyer read a communication from Mr. Henry T. Oxnard, generally known to be the father of beet growing here. He quoted Mons. Thiers' text that one chief element of a nation's prosperity consists in drawing from its own soil the greatest amount of production and found strong reason for national encouragement in the great benefits which had accrued to the European peoples from the fostering of beet culture. Corn and sorghum sugars received attention, and Prof. Wiley closed with the dictum, "all sugars are identical, cane, beet and sorghum."

The discussion of "Surface and Sub-surface Irrigation" chosen for February 20, '94, proved to be one as boundless in its debatable features as the arid lands to which the system is applicable. The Bible and the ancient lands of India and Egypt were cited for its antiquity, and the modern experiments of our Western states for its up-to-date value. The wisdom of national appropriations for constructing hydraulic works was canvassed, and the economic utilization of the water of streams fully

developed. The Farmers listened to high authority on these matters. Mr. Charles G. Gregory of Chicago, from the investors' standpoint, Hon. Francis E. Warren, United States Senate, as Chairman of the Senate Committee on Irrigation, Major J. W. Powell, as Government Director of the United States Geological Survey, each contributed valuable data. Later, Mr. Sturgis was asked for, as a member who was a practical irrigator, and responded with an account of what was then, perhaps, the first extensive irrigation scheme undertaken. He illustrated the hopeless condition of the arid regions by the humorous legend found on the door of a deserted log cabin, "Ten miles to water, twenty miles to timber, God bless our home."

Thus once more, sixteen years ago, the Farmers with a really prophetic sagacity foresaw and announced through their publications the coming of that "conservation policy" now everywhere understood and approved, and upon which the National Government is now expending over \$20,000,000 a year.

1894-95



At the annual meeting, December 18, '94, the secretary, Mr. Sturgis, reported in detail for the committee who had been charged with the effort to widen the sphere of influence of the Association. It appeared that an edition of some 700 pamphlets was now being distributed, and that they were appreciated and preserved by the institutions and individuals who received them. Correspondence was read, indicating a growing demand, and the secretary was authorized, in his discretion, to increase the issue.

On this occasion the subject was "How to renew Pastures and Meadows without Ploughing," and the addresses were made by Professors Isaac T. Roberts and L. H. Bailey, both of Cornell University. The kind of grass to select, summer-fallowing, top-dressing, harrowing, and the increasing hunger of all plants for nitrogen, formed the burden of the talk which ended with some wise words from Mr. Appleton on the subject of lawns.

The death of Mr. John Jay, the former president of the Farmers, took place in the autumn of 1894, and at their meeting January 15, '95, resolutions commemorative of his life, and of their esteem and affection for him were adopted. Mr. Jay came of an illustrious ancestry, and had himself served the country in positions of great

importance. His life was pure, his principles and ideals high, and his capacity for self-sacrifice in the cause of humanity and the right was conspicuously shown on more than one occasion during his long and useful life. He was a notable type of the noblest class of American citizens, and his personal attributes endeared him to his many friends by the closest ties.

When the Farmers met on this occasion the attention of country residents, especially in New England, had been forcibly drawn to the ravages of the "elm beetle," a destructive insect shipped to our shores from Europe in 1878. They had selected for this evening's discussion "The Planting, Rearing and Pruning of Forest Trees and Nut Trees," and the talk took a wide range. Among the speakers were Mr. Louis Verlin, introduced as the inventor of a system of eradicating the elm beetle by inoculating the sap of the tree; Mr. Charles A. Keffer, of the Forestry Division of the Agricultural Department at Washington, and Mr. Gifford Pinchot. The broad distinctions between the growing of forest trees for lumber, where a rich soil is not essential, and the shade trees and nut trees on the other hand where luxuriant foliage and full crops of the fruit are sought, were pointed out. Nut trees are *fruit* trees and draw their fruit constituents from the soil, which therefore must have strong elements and must be reinforced from time to time, as with apple or peach orchards. Forest trees do not exhaust soil, but return all they take. Rapidity of relative growth, methods of pruning, liability to or exemption from disease, were discussed. The ownership of timber land by Cornell University and its substantial revenue therefrom aroused the suggestion that it ought to establish a Chair of Forestry and train men in that profession; and it is gratifying to add to the credit of our Association that this idea was adopted at Cornell, and later at several other colleges,

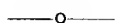
thus causing national recognition of the fact that the handling of forests is a professional work and a valuable and productive industry.

The use of nut trees for shade trees was strongly urged in a letter from Mr. Andrew S. Fuller of Ridgewood, N. J., who exalted the qualities of the time honored beeches, butternuts, chestnuts and walnuts, valuable for their wood as well as their fruit, in comparison with many fashionable but relatively worthless shade trees. A walnut tree planted in 1758 by Roger Morris is still standing on Washington Heights, Manhattan Island, and for over one hundred years has produced biennially two cart loads of excellent nuts. Of our members Messrs. Beaman, Underhill and Lawrence contributed to the discussion, the last named having made extensive experiments. The country about New York City, extending into New Jersey and Connecticut, is much alarmed at the time of this writing, by a parasitic disease, as yet not diagnosed, which is killing the chestnuts, but it is encouraging to know that this fear does not as yet paralyze the industry. A circular just received by the writer offers "sweet chestnut" *bearing* trees, eight to ten feet in height, with the assurance that the crop will more than pay for the investment the first year. Dr. Robt. T. Morris in a recent article urges that nut trees should take the place of the useless trees at present planted for decorative purposes in public and private grounds.

At the meeting of February 19, '95, President Bronson called attention to a series of dairy tests which were made at the Columbian Exposition at Chicago in 1893, and ✓ which were of great interest to all dairymen. He stated that a resolution providing for the publication of these reports had been introduced in Congress, but was likely to fail of passage, and upon motion of Mr. Havemeyer a vigorously worded memorial upon this subject was sent

to the National Legislature. "Horse Shoeing" was the subject of the evening, and rarely have men more distinguished for their knowledge of a subject been brought together than was the case with the guests on this occasion. From Mr. Robert Bonner of New York, the Hon. John E. Russell of Massachusetts, Dr. David Roberge, the author of "The Foot of the Horse," and Dr. R. S. Huidekoper of the University of Pennsylvania, the Farmers heard the "last and best thought" from the highest sources. To attempt to summarize this mass of practical and scientific thought would be futile and misleading. Horsemen can read it to-day with the same profit as that with which we listened fifteen years ago, for Nature (as well as history) repeats herself, and Bonner's experience and studies with the great trotters "Maude S.," "Sunol," and others, and Huidekoper's anatomical analyses are not "for a day, but for all time." Two points stood out pre-eminently—First, that all lameness of the leg (barring the result of accident) comes from an "unbalanced" hoof; and Second, that the educated farrier must succeed the everyday blacksmith as a shoer of horses if we wish the usefulness of our animals preserved.

1895-96



The season of '95-'96 was opened December 17th, and the Farmers were gratified by the gift, from Mr. William Jay, of a photograph of his father, Mr. John Jay, recently the president of our Association. Discussing the subject of "Country House Sewage," Col. George E. Waring, Jr., of the Institution of Civil Engineers, and Mr. Alexander Potter, of the American Society of Civil Engineers, took up the various phases of the question, illustrated by the results of their own installations in parks, public institutions and private residences. Surface distribution, absorption by the soil, the work of beneficent bacteria in oxidizing or burning up the deposits, the varying treatment made necessary by different soils, the proper kind of pipe for interior and exterior work, and precautions against reflex gases, were some of the points explained. The experience of Edinburgh, Paris and Berlin was given, and pertinent questions asked by our members, Post and Havemeyer, regarding disease possibilities were satisfactorily answered.

The subject of "Green Manuring" absorbed attention on the evening of January 21, '96, and addresses were made by Dr. E. W. Allen, Director of the Bureau of Experimental Stations, Department of Agriculture,

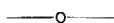
Washington, Mr. J. H. Hale of South Glastonbury, Conn., and Mr. H. W. Collingwood, editor of the "Rural New Yorker." A difference of opinion as to the ultimate value of green manures as compared with artificial or concentrated manures was shown. Dr. Allen believing that from the point of view of pecuniary return it was better to harvest the crop, feed it and return the residue to the land, and the other speakers holding that owing to sale of crops and to careless methods of handling manures, this source could not be relied upon to reinvigorate the soil. Mr. Hale's address, and his account of "trapping nitrogen from the air" by growing and ploughing under green leguminous crops, was especially convincing. His success in thus restoring to fertility worn out tobacco and corn lands was very notable. Mr. Collingwood emphasized the point that ploughing under changes advantageously the mechanical nature of the soil while enriching it. Mr. Burnett spoke upon his experiments in North Carolina.

In the report of this meeting, the secretary, Mr. Sturgis, introduced for the first time the practice of illustration by using engraved cuts of the principal leguminous plants used for green manuring.

Although the subject of diseases of cattle had been previously considered, the existence of lung trouble among dairy animals had become so pressing a question that the Farmers selected "Tuberculosis: Can it be eradicated by Breeding," for their topic on February 18, '96. In the years that had elapsed since members of the Farmers had sounded the first warning note against the contagious diseases of cattle, and aroused the country to the growing dangers of exotic or imported diseases "much water had gone over the dam," as the saying is. The National Government, through its Bureau of Animal Industry, had blockaded our ports against the foreign scourges and,

regardless of state rights dogma had ruthlessly pursued affected animals from the Atlantic to the Pacific. Many states had followed this wise policy and had established state boards to deal with state problems, so it was not with the theories and the possibilities of the future only, but with years of practical work behind them that Dr. D. E. Salmon of Washington, Prof. James Law, head of the Board for Suppression of Cattle Disease in New York, and Dr. Austin Peters of the similar board in Massachusetts, discussed the subject on the evening described. The conclusions may be roughly summarized as follows: Breeding can only prevent tuberculosis by producing insusceptible progeny. Insusceptibility may be racial or individual; the latter may become the former in the course of generations. Breeding should be limited as much as possible to animals shown by tuberculosis tests to be free from disease and probably immune, and the greatest care should be taken to secure immunity by isolation from infected animals, stables or human attendants. The cases of the cattle of the steppes of Russia and the sheep of Algeria were given as instances of acquired racial immunity. The head of the herd should be from a mother whose previous calves have not shown susceptibility. The disease is not congenital. The calf of a tuberculous mother is born healthy, but may become infected at once if not isolated. Depletion from in-breeding or any other cause predisposes to disease. Mr. William E. Dana of East Avon, N. Y., then spoke upon the nature of the disease and its causes, and Mr. Havemeyer described at length his importations of Norman and Simmenthal cattle, and the results from crossing with his Jerseys. Mr. Sturgis described the splenic fever as spread by Texan cattle in the West.

1896-97



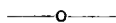
The constant demand for delicate varieties of fruit out of their natural season led to the selection of "Fruit Growing Under Glass" as the subject for December 16, '96. Mr. Henry A. Siebrecht confined his remarks to the grape, and Mr. Samuel Henshaw added an interesting account of the possibilities with figs and pineapples. He also touched upon the raising in this way of cucumbers and tomatoes. He was followed by Mr. John G. Gardner, who had for many years produced successfully in New Jersey most of the small fruits and delicate vegetables, and who said that he had obtained "much better results in color and flavor" in this country than formerly in England. The Hon. James Wood of Mt. Kisco, N. Y., Mr. Wood of Massachusetts, and Mr. John Ash closed the discussion with many valuable details, for which reference must be made to our full records. It is worthy of note that all the speakers attributed the dying out of many of our valuable fruit trees in the Eastern states, especially peach trees, to the destruction of the birds who formerly killed the injurious insects.

In the discussion of the "Pig," which took place January 19, '97; Mr. Warren H. Heutis of Belmont, Mass., and Mr. Riddick spoke from the practical business stand-

point of breeds and feeding versus results. The debate was shared by the members to an unusual extent, Messrs. Lawrence, Fairchild and Mayer giving valuable data from their farms, and Mr. Thomas Sturgis describing the conditions and usage of the Western states. Prof. Chandler testified to the general cleanliness and freedom from intestinal disease of the American pig.

In speeches on the "Uses of the Indian Corn Plant" at the meeting February 16, '97, by Commander Lewis Nixon, U. S. Navy, and Mr. W. W. Gibbs of Philadelphia, the use of corn cellulose for packing the coffer dams of vessels of war was interestingly described. It was stated that the battleship "Indiana" was supplied with a cellulose belt six feet thick, and that its natural expansion would automatically close a hole made by an eight inch shell. Mr. Mark W. Marsden of Philadelphia, and Prof. H. J. Patterson of Maryland, were quoted as to the many uses for this cellulose in the industrial arts, and its value as food for cattle when combined with nitrogenous substances. Prof. Chandler then described the chemical constituents and the many by-products it affords, including glucose sugar and whiskies. On the sugar side of the question Mr. Havemeyer read a paper prepared by Mr. Peter Collier of "The Country Gentleman." At this time the Farmers were issuing annually an edition of one thousand copies of their "Proceedings."

1897-98



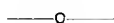
During the year that ended in December, '97, two old and valued members had passed away, Messrs. Charles A. Dana and Theodore A. Havemeyer, and at the meeting on December 21st, it was directed that a memorial be prepared expressive of the regret of the members and of the esteem in which the deceased had been held. The meeting took up the subject of "Hardy Flowering Shrubs and Perennials." Prof. S. T. Maynard of Amherst, Mass., Agricultural College, and Prof. N. L. Britton, Director of the Bronx Garden, New York, gave lists of the most meritorious plants, shrubs and climbing vines, together with their insect enemies and the necessary measures of defence against the latter. Dr. Britton, in concluding, presented Mr. Cornelius Van Brunt, who gave a series of rare stereopticon views of many of the species that had been described. The plates had been colored by Mrs. Van Brunt with great fidelity to nature, and were enlarged upon the screen from life size to from three to four feet in diameter. Under the brilliant electric light thrown upon them they presented a panorama of great beauty.

In taking the chair as the newly elected president on the evening of January 18, '98, Mr. Daniel F. Appleton paid a graceful compliment to the well-known gentleman who

had preceded him, and introduced Mr. Herbert W. Collingwood to speak on the subject of "The Breeding and Feeding of Chickens." In a speech in which statistics and common sense were most interestingly blended, Mr. Collingwood presented some startling figures. At that date the annual earnings of our poultry were placed at two hundred and ninety million dollars, exceeding any other crop, cotton being the second with two hundred and fifty-nine million. His remark that in one year the hens could pay the bonded debt of New York City is unfortunately not true to-day; not that the hen labors less, but the city spends more. Major E. D. Roessle of Albany, followed with many valuable suggestions as to breeds, feed, hatching and the handling of chicks, and Mr. John Doherty of East Boxford, Mass., furnished an elaborate paper dealing with the selection of breeds, crossing, food for layers, for chickens, forcing foods and the difference required by the change of seasons.

Considering the important part which tobacco plays in the life of people the world over, and the magnitude of the industry in this country, it is not surprising to find the Farmers discussing "The Tobacco Plant" when they met February 15, '98. The industry as seen in the Middle and Southern states was dwelt upon by Prof. Milton Whitney of the Agricultural Department, Washington, and details of soil and fertilizers were given, with a glance at Cuba and Sumatra. Dr. E. H. Jenkins, Director of the Connecticut Experiment Station, followed, treating of early colonial history of tobacco as an export crop, and very fully of the growing of the plant for wrappers in Connecticut. An excellent letter from Mr. J. B. Keach of East Windsor, Conn., was read, and Mr. Thomas Sturgis described the manufacture of snuff in Norfolk, Virginia, for the French trade.

1898-99



One of the largest crops of this country, and one near and dear to every farmer's heart, "Hay, its Culture and Marketing," was selected for the talk of December 20, '98. Mr. H. W. Collingwood of the "Rural New Yorker" spoke first, and drawing attention to the negative side of hay culture stated that the three commonest errors were—lack of preparation of the soil, seeding with a grain crop, and the use of stable manure. He enlarged upon this thesis, and was succeeded by Prof. J. B. Lindsey of the Amherst Agricultural College, who spoke of the various kinds of grasses, seeding and harvesting. Messrs. Cannon and Burnett of our membership spoke at length of the hay culture of Vermont and Massachusetts.

If, in spite of the "higher criticism," we may still accept the Biblical record, there is no fruit more ancient than the apple, and although it is said to have led our first ancestors into trouble, it was its *tempting* character that was their undoing, and it has blessed their descendants in a multiplicity of ways since that day.

On the 17th of January, '99, "The Apple and Its Culture" had been chosen for discussion, and the Farmers had as guests Prof. H. E. Van Deman, Chief of the Bureau of Pomology in the Agricultural Department,

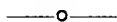
Washington, Prof. F. A. Waugh, of the University of Vermont, Mr. S. D. Willard of Geneva, N. Y., and Mr. Gilbert M. Tucker, the editor of "The Country Gentleman." From a mass of information conveyed to their hearers we cull the following—Of the eleven distinct species into which botanists divide the apple family, four only are indigenous to North America, and nearly all our cultivated apples are descended from one of the only two species native in Europe. The list of states noted for this fruit was given and the names of the more famous varieties grown in each. The characteristics of the tree, its requirements as to soil and moisture, its insect enemies and their antidote, the best fertilizers, pruning and handling for market, each received its quota of comment. The orchard of Mr. Wellhouse of Kansas was described as typical of American energy and success. In 1890 this farm had 1,500 acres of bearing trees and turned out 80,000 bushels of marketable apples, netting the owner some \$40,000.

The love and interest for and in horses of the average American is illustrated by the frequency with which the Farmers returned to subjects in which that good "friend of man" occupies the centre of the stage. The last meeting of the season, February 21, '99, was devoted to the methods of "Breeding, Breaking and Training Young Horses," and our fellow member, Col. Cannon, gave some account of the famous Morgan horses of Vermont. Mr. W. B. Dickerman described the qualities which should be sought in a brood mare, and the approved method of feeding and breaking foals. Mr. Carll S. Burr, Jr., of Long Island, referred to the famous Lady Suffolk, the Hambletonians and others, and laid great stress on the necessity for gentle and intelligent handling of the foal, which he fully described. Mr. F. S. Peer of Mt. Morris, N. Y., gave his experience with English and French coach

1898-99

horses, and Baron Hermann of the German Embassy at Washington, followed with an interesting account of the cavalry and coach horses of his country. At the request of the president, Mr. Moulton gave the pedigree of "Justin Morgan," showing him to have come of imported stock through both sire and dam. An opinion from Mr. Burr that too early training for speed was injurious and should be discouraged, closed a very profitable evening.

1899-1900



In opening the meeting of December 18, '99, President Appleton drew attention to the recent death of our member, Mr. Cornelius Vanderbilt, and asked Mr. Beaman and Mr. Reid to give expression to the sorrow of the Association, which was done by those gentlemen with sympathetic eloquence.

Turning then to the work of the evening the president stated that the subject was "The Cultivation of Small Fruits," and the Farmers were addressed by Mr. James Wood of Mt. Kisco, N. Y., Mr. James W. Withers, the editor of "American Gardening," and Mr. H. W. Collingwood of the "Rural New Yorker. The remarks turned upon the strawberry almost exclusively and its varieties and treatment were exhaustively discussed. So wide is its range in this country and so undisputed, apparently, its premiership among small fruits, that the writer is tempted to quote Dr. Wm. Butler's dictum. Isaac Walton, writing nearly three hundred years ago, says that Dr. Butler used to say "Doubtless the Lord could have made a better berry than the strawberry, but doubtless He never did."

An unusual and novel subject was chosen for the evening of January 16, 1900, viz., "Electricity and its Effect

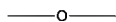
on the Growth of Plants." At an earlier meeting Col. Cannon had called the attention of his fellow members to this recently opened field of scientific plant growing, and had assisted in securing the presence of the guests who elucidated the subject. Dr. John A. Myers, formerly Director of the Experiment Station of West Virginia, opened the debate and was followed by Prof. L. H. Bailey, Bureau of Horticulture at Cornell, and Prof. Wm. P. Brooks of Amherst Agricultural College, Mass. He recounted the experiments of Sir Wm. Crookes, President of the British Association for the Advancement of Science, of Liebig, De Saussure and Grandeau, of Dr. Selim Lemstrom of the University of Helsingfors, Finland, of Hubeck and Von Ende of Germany, of Fife in England, of Kunkel, and of Prof. Rane of the New Hampshire Agricultural College. The effect of arc and incandescent currents, the placing of the wires above and beneath the surface, and the results favorable or injurious upon the different plants, were described. Prof. Bailey told of the failure to kill injurious insects by electric currents—the creatures taking refuge on the soft tissues which are non-conductors, and pursuing their meals undisturbed. The effect of interposing glass was described and the general conclusion was reached that in many cases a marked stimulation of growth may be obtained by electric applications, especially if used at night. An elaborate series of drawings of electrical installations was shown, and they are reproduced on plates in our "Proceedings."

"Fertilizers" occupied the field when the meeting of February 20, 1900, was called to order. Prof. W. H. Jordan of the Agricultural Experiment Station at Geneva, N. Y., Prof. E. B. Voorhees of the Agricultural Station at New Brunswick, N. J., and Mr. H. W. Collingwood made the addresses. The many varieties of artificial fertilizers were specified, the growth of the business of man-

1899-1900

ufacturing and selling them, and the necessity for careful analysis in order to determine value were fully explained. It is interesting to note that in our own state and in many others, twenty-nine in all, the state authorities are now making these tests and publishing them to the farming communities, and the sale of fertilizers is governed by law, worthless ones being denied a license. As in our modern "pure food laws," fertilizers must now carry a statement attached showing their constituents.

1900-01



The meeting of December 18, 1900, was marked by the resignation of Col. Cannon, necessitated by his age and declining health. Col. Cannon had shared with Mr. Burden in originating our Association, and for eighteen years had been not only a constant attendant at its meetings, but had brought to the deliberations the matured judgment and wide experience derived from the practical farming operations of a long life, aided by ample means and stimulated by a genuine "love of the work." So highly did the Farmers esteem his services that in regretfully accepting his resignation as an active associate, they unanimously elected him an honorary member, a mark of esteem previously bestowed upon but one member, General Grant. The deaths of Mr. Bronson and of Mr. Beaman were fittingly noted.

The subject for the evening was the "Wild Flowers of Autumn" and was treated by Mr. Cornelius Van Brunt of the New York Botanical Gardens. The address was illustrated by very beautiful stereopticon views and included a description of the glaciers and flowers of the Canadian Rockies. The characteristics and the habitat of many varieties were most interestingly described, and

attention called to the wonderful way in which Nature thus increases *her* scenic effects.

Mr. John D. Wing had this year succeeded Mr. Appleton as president, and Mr. Thomas Sturgis, after a service of seven years as secretary and treasurer, had been succeeded by Mr. Walter L. Suydam. The discussion of the evening, January 15, '01, reviewing the subject of "Forestry," first considered sixteen years before, took a very wide range. The scientific view was given by Prof. J. W. Toumey of the Yale Forestry School, and Alexander Cummings, Esq., of Villa Neva, Penn. The true methods of lumbering were described and the necessity for planting with one hand as we destroy with the other, was strongly emphasized.

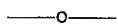
A deserved tribute was paid to John, the Fourth Duke of Atholl, whose Dunkeld plantations in Perthshire, Scotland, have an international reputation. During his lifetime he set out upon his estate some twenty-five million young trees covering over fifteen thousand acres of land, and in the opinion of our own Elihu Burritt, earned for himself the title of "The Great Tree Planter of Christendom." Mr. James J. Hill, the well-known railroad builder, then a guest but now a member, described the forests of the Northwest, and incidentally touched on the enormous consumption for railroad ties. Messrs. Fairchild, Olcott, Post and Chandler, among our members, contributed valuable data, and plates presenting tree growths upon the banks of rivers were ordered inserted in our records.

It will be remembered that at a former meeting the dying out of New England peach and other fruit trees was attributed in a large degree to the killing off of insect-destroying birds, and it was interesting to find that the principal speaker upon the evening of February 19, '01, treating of "Our Native Birds," closed his remarks with an eloquent plea for the "better protection of birds."

1900-01

Mr. Frank M. Chapman, Associate Curator of Birds and Mammals in the American Museum of Natural History, New York, held the attention of our members through the evening. From his encyclopedic knowledge, as was said in relation to geography of the late Judge Charles P. Daly, emerged, in reply to our questions, the habits, environments, usefulness, and in some cases destructiveness, of a great variety of birds and their methods of self-protection. The water fowl were not neglected, and the scavengers of the air received their quota of attention. The migration of birds and the immense height at which they fly in their long journeys was described, and the danger to park birds from the predaceous red and less dangerous gray, squirrel, was touched upon. A series of photographs were shown by the stereopticon. These had been taken from nature, and exhibited the nesting habits of a score of varieties with their nests, eggs and young, and the manner of feeding the nurslings.

1901-02



The death of Gilman S. Moulton had occurred during the interim, and at the meeting of December 17, '01, the president paid a feeling tribute to the qualities which had endeared the deceased to his fellow members. Mr. Suydam declined a re-election as secretary, and Mr. Francis R. Appleton succeeded him.

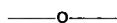
"Dairying at Home and Abroad" was the "piece de resistance," and Major Henry E. Alvord, Chief of the Dairy Division of Agriculture, Washington, delivered a long and notable address. His experience enabled him to review from personal knowledge the practice of the various European countries in the matters of milk, butter and cheese, and these were interestingly compared with our own. The intelligent and practical inquiries of the members present, many of them no mean performers in the dairy art, pleasantly punctuated the discourse and made clear the salient points. Stereopticon views were given, an admirable educational adjunct which was thereafter frequently used by the Farmers.

The increasing interest of the subject led the Association on the evening of January 21, '02, to return to hot house culture, and Messrs. Patrick O'Mara, of Henderson & Company, the well-known seedsmen, and William Tur-

ner, of Oceanic, N. J., a practical fruit grower, talked to us on "Fruit Forcing Under Glass." The first speaker devoted his remarks exclusively to grapes, the necessary buildings, choice of fruit and treatment. Mr. Turner while admitting the pre-eminence of the grape, gave interesting sidelights on the peach, nectarine and melon.

In discussing "Grasses" at their meeting February 18, '02, the members displayed great knowledge of the subject, and their comments and briefly given experiences admirably supplemented the address of the guest, Prof. W. J. Spillman, Agrostologist of the Department of Agriculture, Washington. The talk took a wide range and traveled from the Timothy of the East to the Bermuda grass of the South, and from the Blue grass of Kentucky, and the Alfalfa of Wyoming, to the Clover pastures of Oregon and California. It was something of a surprise to learn that wheat, oats, rye, barley, corn, sugar cane, sorghum and bamboo, are generally classified as grasses. Interesting stereopticon views of many varieties were shown at the end of the evening.

1902-03



The marvelous development in machinery for harvesting, an advance peculiarly due to American inventive genius, had not been forgotten by the Farmers, and on December 16, '02, they met to discuss "Modern Farm Methods and Machinery." Mr. R. B. Swift of the International Harvester Company, was the principal speaker, and his remarks were illustrated by stereopticon views and moving pictures, which showed the machines he described performing their work with almost human intelligence. He alluded to his days spent with the farmers of Australia and the Argentine, of France and of the steppes of Russia, showing incidentally how American enterprise and American machines have "girdled the globe." From the crooked stick plow of the ancients to the self-binding harvester of to-day, and from the treading out of grain by the feet of cattle to the steam thrasher of our times, the members followed him with absorbing interest. The subdivisions of this kind of machinery are innumerable, and every want of the farmer in handling his varied crops is now met by a machine ready to economize his time and labor. Corn is picked and husked, potatoes dug, tobacco transplanted, by machinery, and a farm road engine drives the machines

and then hauls the produce to town. The figures are amazing in their magnitude. Fifty million acres of grass are thus mown annually in our country. The Department of Agriculture estimated in 1899 that ten minutes labor now raises a bushel of wheat against three hours in 1830; and that in the year named agricultural implements saved to us six hundred and eighty-one million dollars in human labor.

The meeting of January 20, '03, was devoted to a history of the Bronx Botanical Gardens, showing the stages of their development. It was given by Dr. Britton, the director, and was illustrated by beautiful stereopticon views. Our member, Mr. D. O. Mills, the president of the Garden Society, added a few words which crystallized the intelligent labor of himself and associates for many years into the space of a few minutes.

At the preceding annual meeting Mr. W. Austin Wadsworth had been elected president, and at the last meeting of the season, February 17, '03, he announced as the subject for the evening "Forestry for Farmers," a subdivision of a broader topic discussed some years before. An old friend of the Association, the Hon. Gifford Pinchot, responded with a long and careful survey of the present demands upon our timber, the methods that must be adopted to renew the supply, the part which the farmer can play, and the pecuniary returns possible of realization by well directed effort. The value of the Forestry Bureau to the farmer, through the services of its agents, was gratefully testified to by our members. The wheel of time is creating new and enormous demands upon our forests, and the one hundred and forty million railroad ties annually required, and the amount needed by newspapers through the pulp mills (in the case of one publication seven hundred tons per week) are calculated to "give pause" to thinking men. Mr. F. K. Sturgis

1902=03

described the use of California redwood as lining for tunnels subjected to great water friction, and Messrs. Burnett and Chandler added instructive comments on tree growing by the farmer.

1903-04

In a very thoughtful and interesting address before the Farmers on the evening of December 15, '03, Prof. L. H. Bailey of Cornell University took up the subject of the "Forward Movement in Agricultural Teaching." Starting with the premise that "book farming" had risen "from its low estate of fifty years ago to a high and dignified place in the eyes of the agricultural community," he illustrated his theme by many valuable statistics. In this state in the earlier period the percentage of return from agricultural products upon the capital employed was less than one-fifth of that earned upon capital employed in manufacturing; while the value of farms to manufacturing interests was as 64 to 1000, the per capita value of their respective products was as \$34 to \$300. Agriculture was the last field in popular education to be developed, but now, taking Cornell as an example, thirty-three professors teach agriculture where one had been thought sufficient, and out of that one chair of learning have sprung a dozen specialties, such as chemistry, dairying, soil physics and engineering forestry, rural economics, etc. The United States Land Grant Act of 1862 was the Magna Charta of agricultural education. Every state organized an agricultural college supported by the income

from the lands thus granted and by a supplementary act in 1887 experiment stations were provided for every state. The farmers' homes, the drudgery of the wife, the rural school, and sanitation, were touched upon and possibilities of improvement suggested. Mr. Thomas Sturgis spoke of the effect of farming and poultry and stock raising in weaning the Indians of the plains from their nomadic and predatory habits, and Mr. Herbert Wadsworth spoke interestingly about country roads.

When the meeting of January 19, '04, was held the subject of pure milk was absorbing much attention in its relation to the children of the city, and we were able to secure the attendance of Dr. Herman M. Biggs who, as consulting bacteriologist and Chief Medical Officer of the Board of Health, was able to speak with more knowledge than anyone of the difficulty of securing good milk for a great city, and the large number of deaths caused annually by the impurities of the supply. The difficulty of supervision of the source of supply may be inferred from the fact that the milk is drawn from five states, and in some directions from a radius of over five hundred miles. The assurance of the speaker corroborated what has been hitherto stated at our meetings, that milk as it comes from the cow is usually free from germs, but the probability of its early infection was emphasized. It is an admirable culture medium, and typhoid, scarlet fever, diphtheria and other diseases, especially the diarrhoeal troubles of children, are often traceable directly to the action of micro-organisms generated in the milk after it leaves the cow. Stereopticon views of germ life were shown.

During the meeting held February 16, '04, the possibility of increasing the usefulness of our Association was discussed. Among the suggestions made were the reprinting of agricultural classics, and the paying for the distribution of the lectures delivered at Cornell upon farming subjects.

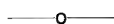
No definite action was taken. The president drew attention to the recent death of our former president, Mr. Daniel F. Appleton, and feeling and affectionate tributes were paid to his memory by his brother farmers. Mr. Appleton was one of the small group of distinguished men who united with Mr. Burden in founding our Association and was, for many years, a regular attendant at its meetings, and a valuable contributor to its discussions. He was a successful business man and aided in the establishment and growth of one of the great and permanent industries of this country, but it is safe to say that his manufacturing interests, large as they were, never alienated his affections from the farm at Ipswich. He studied its problems, enjoyed its successes, and gave freely from his knowledge and experience wherever and to whomsoever it might be useful. Our Association could not have obtained its importance or attained its usefulness without the co-operation and labor of such men as he was, and our future success will depend greatly upon whether there be found among the present generation of Farmers the same broad minded and liberal spirit, the same willingness to examine the new, without precipitately abandoning the old, the same genuine love of the soil, the same delight in getting back to the farm, tastes born jointly of inheritance and of practice, which characterized his life.

The subject of the evening's talk was "The Heavy Harness Horse." Upon this topic an interesting address was made by the Hon. Henry Fairfax of Virginia, who gave the precedence for the above purpose to the Hackney. Mr. F. M. Ware sent a paper which was read and which declared that we are now building up an American type which is excellent for our requirements, and with care can be perpetuated. It contained a warning against sacrificing other valuable traits for speed. Mr. Harvey Ham-

1903-04

lin, the well-known horseman of Buffalo, and several members contributed to the discussion.

1904-05



The evening of December 20, '04, was devoted to the explanation and elucidation of what may be justly termed an epoch-making discovery. The exhaustion of nitrogen in our soils and its existence in satisfying quantities in the atmosphere were known, and the practicability of withdrawing it from the air to the soil by ploughing under certain crops when in their green stage, was recognized; but that this power of the plant depended upon the existence in the soil and attached to the roots of the plant of a certain bacteria and that these bacteria could be transported at will about the country and unfertile soils made productive was new and most interesting doctrine. Consequently when Prof. George T. Moore of the Department of Agriculture, Washington, rose to speak on the subject of "Inoculating the Soil with Nitrifying Bacteria" he received profound attention. His remarks covered a wide field and are fully reported in our "Proceedings," with illustrations showing the appearance of the roots when inoculated, and also showing the method used by the Department in distributing inoculated soil material to farmers over the country. The experiments of other countries were described and many made in our country with various crops were given in detail.

At the close of the address Prof. Chandler gave many interesting facts bearing upon the subject drawn from the history of other countries, and in which the chemistry was "made easy" to the lay members in the Professor's happy manner. Other members joined freely in the talk, and the wisdom and public spirit shown by Prof. Moore in patenting his propagating and distributing methods and giving them to the United States to guard our farming interests against a monopoly, was fittingly complimented. It is worthy of note that at this writing, September, 1910, we are advised from England that a micro-organism, the enemy of our friendly bacteria, has been discovered, and that means that methods to destroy the foe will soon follow.

That the Farmers believed that further light could be thrown upon a former subject after the lapse of years, was made evident when, on January 17, '05, the vice-president announced "The Pig," "the most important animal we have upon the farm from a practical point of view," and called upon our guest, Mr. John R. Gentry of Overton Hall Farms, Nashville, Tenn., to give his experience. The speaker's remarks were replete with details as to frame and form, selection of breeding stock, care of the sow and her young, varieties of food, the seasonable changes and the effects produced. Methods of fattening and marketing were not forgotten. Messrs. Burnett and Suydam, of our membership, spoke at length on their own experiments, contributing, as often before, much valuable data.

The annual election, now placed at the end of the season, was held February 21, '05, and Mr. John S. Barnes succeeded to the presidency. The "Rotation of Crops" had been selected, and again our esteemed friend, Prof. L. H. Bailey of Cornell, was the chief guest and speaker. The old practice and the new were reviewed and com-

1904-05

pared and elaborate tables of results were incorporated in the paper presented. The address was exhaustive within the limits of the time assigned and can be consulted to-day with profit as it stands in our "Proceedings."

1905-06

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In opening the meeting of December 19, '05, the president spoke feelingly of the loss sustained by the recent decease of three members, Messrs. Adrian Iselin, Richard Somers Hayes and John Sloane.

In attempting to condense or epitomize the valuable scientific papers which were frequently presented at the Farmers' meetings, the historian is constantly impressed with the difficulty, which only those who have tried it will understand, of making any synopsis suitable to the scope of our present purpose. As one reads with fascination the address of Prof. Henry Fairfield Osborn on the "Origin and History of the Horse," and follows him from pretertiary times to the present day; from Arabia and the Asian steppes to Mexico and Wyoming; from the little four-toed Eohippus, sixteen inches (or only four hands) high at the shoulder, who ranged our American plains say three million years ago and was the father of the race, to the 19th century Percheron draught horse of 2,000 pounds; and from the cave drawings of the horses of his day carved or scratched by paleolithic man with a sharp instrument on the walls of his retreat where they may be seen to-day, to the beautiful instantaneous photographs of

our thoroughbreds in action, the writer is forced to realize that no summary could do justice to the subject. Prof. Osborne spoke, and justly so, "as one having authority." He had been not only a pioneer in the history of the horse, but he was able to say the latest, if not the last word on the subject.

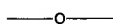
Starting with the premise that the horse is the noblest of domesticated animals and the most useful to man, not excepting the cow, reminding us that in parts of Asia where no cattle have existed, the products of the horse in milk and meat have supplied the inhabitants with the equivalents of cow's milk, butter and beef for thousands of years, he described the laborious and successful search for earlier forms, the mechanism of the bony and muscular structure, its similarity to the human frame, the distribution and migrations of the race and the causes that lead to them, and to their evolution into present types. Their cousins, the zebras, and wild asses, were discussed, and the whole was profusely illustrated by photographs, which are faithfully reproduced in our records. It was new to many to learn that the famous Arab strain of horses came originally from Northern Africa where the domesticated horse first reached a perfect type, and that the Andalusian Barbs of Spain were bred from African horses left there by Hannibal.

The second evening of the season, January 16, '06, was marked by a peculiarly interesting and instructive address on the topic of "Trees and their Propagation, Insect Enemies and Methods of Controlling them." The speaker was Mr. George T. Powell, President of the Agricultural Experts Association. The changes in our fruits due to soil and climatic changes were dwelt upon, and the steps necessary to produce new varieties of equal value. The "insect enemies" were minutely described,

the famous incident of the accidental introduction of the Gypsy moth, that destroyer of millions of shade trees and of dollars, at Medford, Mass., in 1878, was narrated. The habits of these destructive pests were given and the best means of defense. Interesting photographs were shown, and have been reproduced in our "Proceedings."

The "Carnegie Institution" at Washington and its aims and work, was described to the Farmers by its president, Prof. R. S. Woodward, on the evening of February 20, '06, and a description was given of the experiments of Mr. Luther Burbank of California, especially in the crossing or hybridizing of plants. He was followed by Mr. Patrick O'Mara, who made an interesting address, interspersed with humor, and giving the obverse of the picture, the moral of which was "there is no really new thing under the sun."

1906-07



On resuming their pleasant professional duties on December 18, '06, the Farmers paused to pay a tribute of earnest respect and regard to the memory of two of the Farmers who had passed away since the February meeting. Mr. Burden and Colonel Cannon have been often alluded to in this history. To these two men, more than to any others, the conception and the building up of our Association is due. They gave it form and substance. Their efforts were constantly directed toward preventing us from becoming a purely social organization with merely the tie of good fellowship. As farmers discussing farming they steadily and unswervingly kept the needle pointed to the pole. They gave and left to us a high ideal, to which, whatever of value we may have accomplished, is due, and our future will be greatly influenced by the measure in which we live up to it.

A subject of great interest to our members had been chosen, the "Management of a Country Place," and Mr. G. T. Powell spoke at length and most practically about it. The planting of trees, the pruning necessary when setting out, the careful selection of animals and tools, the study of the soil, the tendency to dishonesty and shiftlessness among superintendents, coachmen, gardeners, etc.,

were enlarged upon, all emphasizing the necessity for the "eye of the master" and that the best results cannot be obtained without personal effort.

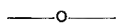
The immense influence for good of the Agricultural Department at Washington was early recognized by our members, and the versatility of its labors, the admirable and, it may be truthfully said, the astonishing results obtained by its highly trained and organized body of practical scientists, has nowhere found better public expression than in the addresses which members of its staff have from year to year delivered at our meetings. Statistics are not needed here, but it is pleasant to bear witness to the judicious expenditure of its great appropriations, and to find in it another proof that we are truly and primarily a farming nation and are keeping up with, if not leading, in the most advanced thought in handling "Mother Earth."

On the evening of January 15, '07, Prof. B. T. Galloway, Chief of the Bureau of Plant Industry, took for his theme "Progress in Plant Work as affecting the American Farmer and Fruit Grower." He stated that his bureau was employing between 500 and 600 men, and when we realize that it is but one of twenty similar bureaus, employing in all 7,000 workers, and expending \$12,000,000 a year, some idea of the magnitude of the department's work is brought home to us. The citrus industry, its oranges, grape fruits, pineapples and lemons, and their new varieties, were described, and then the talk turned to the cottons and tobaccos of the South. Durum wheat for the arid lands, and new and better rice seed from the Orient, showed that the people of the great plains might also be farmers and that Louisiana and Texas were not overlooked. The tea industry also had its "day in court." Plant diseases were then discussed and many instructive stereopticon views were shown.

1906-07

The subject of "Farms and Farmers" selected for the evening of February 19, '07, proved something of a misnomer as applied to the interesting address of Mr. Homer Davenport, the guest of the occasion. After some allusion to his boyish penchant for horses, the speaker gave a graphic account of his unique experience in a recent visit to Arabia, where he went to secure some breeding animals of the famous Desert strain of blood. Armed with an Irade from the Sultan permitting the sale and export of a limited number, he and his friends reached Aleppo and from there were guided across the desert to the tents of the Anazeh tribe. With happy bonhomie and the moral support of the Sultan and the "Great American Sheik" (the President) behind him, he made himself popular with the Bedouins and secured a number of valuable animals of both sexes, receiving some of the finest as presents from the generous and hospitable children of the desert. The account was replete with interesting and humorous incidents of human nature and travel.

1907-08



During the year preceding the meeting of December 17, '07, the Farmers had lost by death three members: Messrs. Alexander J. Cassatt, Samuel Sloan and Marion Story. The first two were men so widely known in the railroad world that comment upon their manifold interests and great constructive work for the Pennsylvania and the Lackawanna Systems is not needed here. But Mr. Sloan was one of our Founders, and for many years a regular attendant at our meetings. He belonged to the group of Hudson River farmers who, from the beginning, have been a large and valuable factor in our Association. All of them owned, enjoyed and worked their farms, and Mr. Sloan's place at Garrisons shared his affection with his railroad interests. His comments during our discussions were always shrewd and practical, and our members saw another of the old-timers leave them with deep regret.

Not inappropriately, in view of the number of Chiefs of Transportation among our members past and present, the subject selected for the evening was "Rural Highways." The first speaker, Mr. L. W. Page, Director of the office of Public Roads, Department of Agriculture, at once caught the attention of his audience by reminding

them that practically all the farm products of the country transported by the railroads, were first hauled by wagon to the shipping point, thus suggesting the enormous tonnage passing over the "rural road." After treating generally of ancient and modern types, he gave most interesting details of the experiments of the Department with sand-clay, burnt clay and oiled roads in sections like the Yazoo Valley, Mississippi, where there is an absence of any suitable road making material. The new problems introduced by new vehicles of greater friction and greater speed, as motor cars for instance, were considered, and the necessity for appropriate state legislation was emphasized. Mr. William Pierrepont White, the County Superintendent of Oneida County, N. Y., followed Mr. Page and gave a highly interesting and practical account of the road system of this state, the enormous expenditure, the poor result obtained, and the absence of a systematic, well directed and permanent policy. In his remarks he complimented our members Messrs. Sanger and Jay for their efforts in connection with road administration, and Mr. Sanger in replying dwelt upon the great importance of securing such men as the previous speaker to supervise the road interests of each of our many counties.

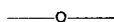
Desirous of learning what progress had been made since the subject had been discussed some years before, and having in the meantime tried many bacterial experiments on their farms, the subject of "Beneficial Bacteria for Leguminous Crops" was chosen for the evening of January 21, '08, and Dr. G. H. Earp-Thomas delivered the principal address. Passing over the general facts known to our members, he described the methods of distribution to farmers, now used by the Department at Washington, distributed photographs, showing the results in different stages of growth, and read reports from many farming sections telling of the results attained. Our members

Sanger and Suydam spoke at length upon the results of their trials, and Prof. Chandler gave the history of the discovery and development of the scientific use of bacteria for crop purposes.

On the last evening of the season, February 18, '08, the president drew attention to the recent decease of a valued member, Mr. J. Hobart Warren. Mr. Warren had been for many years a regular attendant at our meetings, and was endeared to us by his many lovable and social qualities.

The subject of "Plant Breeding: What it is doing for Agriculture," i.e., the introduction from other countries of new and better varieties of plants, and the improvement of our present stocks by crossing and selection, had greatly interested our members the year before, and on this evening the same kindly scientist, Dr. Galloway, of the Bureau of Plant Industry, had consented to bring us "up to date" with the work of the department. The maize of Central America, the tobacco of Sumatra, the durum wheat of Russia, the alfalfa of Peru, China and Siberia (found originally in the ancient home of our race, Turkestan), the blue grass of Canada, the cotton of Egypt and Guatemala, followed each other across the stage of the speaker's remarks. New citrus fruits, new lettuce, new tomatoes and new red clover were described and illustrated, and the cactus of the arid plains of the Southwest was pronounced to be of easy cultivation and a valuable food for stock.

1908-09



The new season was inaugurated on December 15, '08. Mr. Reginald W. Rives had been elected president, Mr. Barnes having declined re-election, and Prof. Chandler, vice-president. The death of Mr. George G. Haven in March, was noted with expressions of earnest regret. The work of the national government in the redemption of our arid lands had been considered from a theoretical standpoint at a previous meeting, but so much of a practical nature had been accomplished since then, and such gigantic projects for water conservation had latterly been undertaken by the Washington authorities, that the Farmers had secured for this evening the presence of Dr. Samuel Fortier, Chief of Irrigation Investigations of the Department of Agriculture, who entitled his address "The Irrigation Outlook in the United States." After defining the scope of his bureau as the "Irrigation Division of the Office of Experiment Stations acting under the Department of Agriculture, and that of the Reclamation Service, operating under the Department of the Interior," the speaker proceeded to describe the progress made and present status in re irrigation in thirteen of the Western states and territories. The laws, the methods adopted, the crops grown in each, were passed in review,

and the future pictured in glowing colors. The necessity for getting the utmost use of water, and eliminating waste in a country of "magnificent distances" between streams, as in our arid region, was emphasized, and views were shown upon the screen illustrating the salient points of the address.

Public interest in our country is apt to move in waves which flow and ebb and rise again. The so-called "bicycle craze" was an instance, and the present aeroplane fever is another. The preservation of timber absorbs public attention for a space, and the conservation and utilization of water power follows close upon its heels. But for enduring and personal interest the motor car is undoubtedly first. It has "come to stay" and its effects must be considered and dealt with. Of these the public is most concerned in the effect upon our roads. The friction of the rear wheels driven by a powerful motor and propelling a vehicle of a ton or more at forty miles an hour, has rendered our roads obsolete, it may be said, in a day. The macadamized surfaces are reduced to a powder which blows away, leaving bare the metal of the road, and less substantial highways are more speedily destroyed. If we are to have the motor car as a permanency, our roads must be in large measure reconstructed.

Realizing this, and desiring the best thought on this live subject our members had selected for the evening of January 19, '09, the "Economic Value of Modern Roads, Abroad and at Home." The guests of the Farmers were Governor Quinby of New Hampshire, and Mr. Samuel Hill and Mr. Clifford Richardson, who had been delegates to the International Congress of Roads recently convened at Paris. Governor Quinby spoke of the general movement throughout the New England states for improved roads, and especially for long distance thorough-

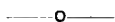
fares, which should connect great cities with interior points not easily reached by rail, and render more accessible the wonderful scenery of our mountain ranges. He told of New Hampshire's annual appropriations for this purpose, and pledged her to keep pace with New York. Mr. Hill began with an eloquent tribute to the American farmer constituting, he said, ten and one-half out of our eighty-six millions of people. Their need of more and improved highways was urgently pleaded, comparisons with Europe were made unfavorable to our own progress, and the monopolizing by other industries of public sympathy and public capital to the exclusion of road building was deplored. The speaker then exhibited views of English, French and Belgium roads in process of construction showing the various types and methods and machines used. Mr. Richardson devoted his remarks to the motor car use and abuse of roads and described the steps taken by road engineers here and abroad to neutralize the severe abrasion. As a concrete figure he stated that in Massachusetts it was held that it now required \$300 per mile per annum for maintenance as compared with \$100 per mile before the advent of the motor. Of our members, Messrs. Sanger and Fairchild made valuable suggestions. Upon the former's motion it was ordered that the substance of the addresses of Messrs. Hill and Richardson should be sent to the State Highway Commission.

The closing meeting of the season, February 16, '09, was devoted to a more general subject than was customary, on the general principle that it is well to pause at intervals in our pursuit of special objects and endeavor to gain a view in perspective of the entire field of labor of which these objects are a part. Under the title of "The Rural Outlook" our members tried to gain such a comprehensive view, and in this they were aided by their guests,

Prof. L. H. Bailey of Cornell, and Dr. Charles W. Stiles, in charge of the Medical Zoology Department of the Public Health and Marine Department service.

Our members will recall that some months previous to our meeting, a commission had been appointed by the President to report upon the conditions of country life throughout the United States. Of this commission, Prof. Bailey was president, and Dr. Stiles a member detailed by the Treasury Department. In describing the purpose and aim of the commission, Prof. Bailey said that the general social, economic, sanitary and educational questions of country life had been sought rather than technical farming details. An enormous correspondence had been conducted, church facilities and land tenure had been studied and many states had been visited. Deficiencies and disabilities were pointed out. The lessening fertility of the soils and decreasing of forest area was again, as on many previous occasions, impressed upon our members. The woman's position and work on the farm was described as the one feature most needing to be alleviated. Dr. Stiles directed his address chiefly to the diseases of the farming districts and dwelt especially upon those of the South. He described the ravages of typhoid and the recently discovered "hookworm" diseases, and ascribed the prevalence of these in fatal form to soil contamination. The ignorance of and indifference to the most ordinary forms of sanitation, render the problem of relief very difficult. The speaker concluded by describing the filth diseases of the Orient, to which we are somewhat exposed by immigration.

1909-10



The year 1909 did not pass without further depletion in our ranks. Rutherford Stuyvesant, one of the members of '82, and E. H. Harriman, died during that period, and at the meeting of December 21st the president alluded regretfully to the loss thus sustained. The occasion was further marked by the withdrawal of Mr. Francis R. Appleton from the position of secretary and treasurer and the assumption of these duties by Mr. Samuel Sloan. Mr. Appleton had served the Farmers for some years in this dual capacity and with conspicuous success. The laborious nature of these duties and the responsibility involved, is perhaps not fully understood by our members and, while details are unnecessary, it is sufficient to say that the work demands systematic attention and a large modicum of tact and diplomacy. In these and other respects Mr. Appleton's administration left nothing to be desired.

The removal of trees from one site to another has always been a prominent feature in the building up and beautifying of our country places, and this evening our members listened to a master in the art of "Tree Planting and Maintenance after Planting." The guest and speaker was Mr. Arthur Herrington, Superintendent of

the Florham Farms, Park Department, New Jersey. In his official position Mr. Herrington had directed the transplanting of hundreds of trees of different kinds, and had watched and noted the results. From this experiment he had evolved a double-barrelled axiom: "Preserve all the roots possible" and "give the tree in resetting an excavation as large in all respects as the one from which it came." His accounts were most interestingly illustrated by pictures of trees in all stages of transplanting, and these were thought so valuable that fourteen are admirably reproduced in our Records. The speaker's remarks, replete with practical instruction, we shall not attempt to summarize, but the hour was late ere the members ceased plying him with questions covering the varied interests of many country seats.

Again in 1910, as in the year before, the decease of valued members left vacant chairs among us which had for years been filled by valued friends. At the meeting of January 18th the death of John D. Wing, D. O. Mills and H. McK. Twombly were noted with the usual tribute of respect and sorrow. Mr. Wing was one of the "Founders," had served as president, and was unfailing in attendance while his health permitted.

It had become a matter of common knowledge that the increased price of labor had multiplied and complicated the difficulties of farming. The exodus of the farmers' sons from farm to city continued unabated, and the extent to which this loss might be replaced by the incoming farmer peasants of Europe led our members to ask Mr. George T. Powell to talk to them on the subject of "The Labor Question in the Agricultural Districts." The speaker's remarks showed a careful study of this serious question. Farming had been prosperous and popular up to 1860, but had shown a marked change for the worse since then. Farm

labor was now more costly and less efficient and the increased cost of living, so generally talked of, is partly due to this. The better class of men, finding that they can get but eight months of steady, well paid work a year on the farm, seek other and steadier employment. The future possible to a farm laborer seems unattractive to the young men of our race. The competition of the West, with its larger areas and freer use of machinery, handicaps the Eastern farmer. The agricultural college and the evolution of farming into a scientific and well-paid pursuit seems one solution of the problem. Co-operation in buying and in selling offers another. Mr. Leighton and Dr. McAlpin, among our members, spoke upon the features of the question which had most engaged their attention.

At the meeting of February 15, '10, two resolutions were adopted: one appointing a committee "to prepare and print a History" of our Association, which committee consisted of Mr. Thomas Sturgis, chairman, and Messrs. Appleton and Sloan; and the second appointing a committee to consider and report a "plan for a more permanent organization," which committee consisted of Mr. Francis R. Appleton, chairman, and Messrs. Wm. D. Sloane and Watson B. Dickerman, with the president and secretary as ex-officio members. The latter resolution has far-reaching possibilities and it is hoped a practical plan may be evolved.

The opinion expressed by Prof. Powell at the preceding meeting, viz., that a marked decrease in the productivity of farm lands throughout the Eastern states had occurred in the last half of the century, and that this was at least one factor in the increased cost of living, led to the selection of "Restoring the Fertility of the Soil" as the subject for the last meeting of the season, February 15, '10. The topic in its general aspects had been previously

discussed by our members, but now brought face to face with a condition and not a theory, it had seemed to them advisable to seek a remedy and to seek it among those who were dealing practically in every day life with this admitted and dangerous evil. For this purpose they had secured the presence as guests of Mr. John N. Hoff of New Jersey, and Mr. J. H. Hale of Connecticut.

Mr. Hoff began his address by stating that the four essentials of all fertile soils are sand, clay, lime and humus. Defining the last named, he said that humus "is decayed organic matter of both vegetable and animal origin, and contains that most costly and most needed element, nitrogen, together with humate compounds of potash and phosphoric acid lime." Humus is the natural food and dwelling place of the micro plants or bacteria, whose value our members fully understand. Soil should never be left bare but should be always clothed with some form of vegetation. Nature abhors bare soil as she does a vacuum. Twenty years cropping will show a loss of 60 per cent. of humus and a corresponding drop in the yield of grain. Worn-out soils are always short of lime also. Remedy, ascertain the physical condition first, and apply the lacking elements second. The variety of materials from which to obtain these elements and how to apply them, were described with care and much weight was given to the value of swamps, if enriched with bacteria, as an ideal source of supply for humus. Chemical substitutes were not forgotten and "Dry Farming" as practiced in arid parts of the West, was commended as well worthy of imitation here as a safeguard against droughts.

Mr. Hale, who followed him, had given a lifetime to restoring worn-out soils, and his experience ranged from the rough Connecticut farm, where he was born, to the cotton lands of Georgia. The central note of

his remedy for exhausted soils was deep ploughing and leguminous nitrogen-trapping crops ploughed under green. He said "these plants would work nights and Sundays on their job (of capturing nitrogen) and that looked pretty good to me alongside of twenty cents a pound for the same thing in market." Under this regimen the twenty acres of the inherited farm had grown to five hundred, the twenty-five bushels of corn per acre to one hundred, and his peach and apple orchards return a net per acre of from \$400 to \$700 a year. Following this principal has given him on the worn-out Georgia lands fifty bushels of corn per acre and on one hundred acres in cotton one hundred and twenty-one bales. He predicted that the South, with an intelligent handling of its soil, can increase its cotton crop from the present 12,000,000 or 14,000,000 bales to 30,000,000 or more. Both addresses were replete with practical information, and the Farmers felt that the spectre of failing soils would cease to terrify us if the people generally could understand the simple and efficacious methods by which it can be made to disappear.

If the deliberations we have recorded "point a moral or adorn a tale," it is that, as Lowell says: "New occasions teach new duties, time makes ancient good uncouth." It is no longer true that "he who by the plough would thrive, himself must either hold or drive." The Farmers have demonstrated that farming should be done as the painter Opie mixed his paints, "with brains, sir," and the prize and the success is to him who, while carrying the "lamp of experience" in his hand, keeps his mind ready to receive the light of the future as it reveals itself.

FINIS

At a regular meeting of The New York Farmers held at the Metropolitan Club in New York City on the evening of December 20th, 1910, the foregoing report by the Committee upon the History of the Association was received and approved, and the following resolutions were then adopted by a unanimous vote.

RESOLVED, That the Committee which has presented the report upon the History of this Association is hereby directed to continue its work, and to cause the same to be printed and bound in such way and in such number of volumes as in their judgment they may deem best; and further

RESOLVED, That the Secretary is hereby authorized thereafter to make such distribution of said volumes as said Committee may direct.

LIST OF MEMBERS.

Agnew, Cornelius R.	Feb. 14, 1882
Appleton, Daniel F.	Feb. 14, 1882
APPLETON, FRANCIS R.	Dec. 18, 1900
APPLETON, JAMES W.	Dec. 15, 1908
Arthur, Chester A.	Dec. 19, 1885
BAKER, GEORGE F.	Dec. 15, 1887
BARNUM, WILLIAM M.	Dec. 17, 1907
BARNES, JOHN S.	Dec. 19, 1892
Beaman, C. C.	Jan. 19, 1892
Beck, George A.	Feb. 14, 1882
Billings, Fred. A.	Dec. 16, 1886
BLAIR, C. LEDYARD	Dec. 19, 1905
Borland, John	Feb. 25, 1887
Borland, J. Nelson	Dec. 16, 1886
Borrowe, Samuel	Dec. 11, 1890
Bowditch, E. F.	Jan. 8, 1891
Bronson, Frederic A.	Feb. 14, 1882
Brown, George H.	Dec. 15, 1883
Burden, James A.	Feb. 14, 1882
BURNETT, EDWARD	Dec. 21, 1897
Cannon, LeGrand B.	Feb. 14, 1882
Cassatt, Alexander J.	Dec. 21, 1893

CHANDLER, CHARLES F.	Feb. 14, 1882
CHOATE, JOSEPH H.	Jan. 20, 1887
Clift, Smith	Feb. 14, 1882
Colgate, Samuel I.	Feb. 25, 1887
Corning, Erastus	Feb. 14, 1882
CUTTING, W. BAYARD	Feb. 17, 1891
Dana, Charles A.	Feb. 21, 1893
Darling, A. B.	Dec. 19, 1892
Davison, Henry J.	Dec. 19, 1889
DEPEW, CHAUNCEY M.	Dec. 16, 1886
Dickson, Thomas	Jan. 15, 1883
DICKERMAN, WATSON B.	Feb. 16, 1904
DIETERICH, C. F.	Jan. 15, 1895
Dinsmore, William B.	Feb. 14, 1882
Dodge, Cleveland H.	Jan. 15, 1895
DU PONT, WILLIAM	Dec. 21, 1909
Evarts, William M.	Dec. 19, 1885
EVARTS, MAXWELL	Feb. 15, 1910
FAIRCHILD, CHARLES S.	Dec. 21, 1893
FORD, J. HOWARD	Dec. 17, 1901
FRENCH, AMOS TUCK	Jan. 17, 1911
GERRY, ELBRIDGE T.	Dec. 21, 1897
GERRY, PETER G.	Dec. 17, 1907
Grant, Gen. U. S.	Feb. 14, 1882
HAMILTON, W. PIERSON	Dec. 21, 1909

Harriman, Edward H.	Dec. 19, 1905
HAVEN, JR., GEORGE G.	Dec. 21, 1909
Haven, George G.	Feb. 19, 1895
Havemeyer, Theodore A.	Feb. 14, 1882
Hayes, Richard S.	Feb. 17, 1891
HILL, JAMES J.	Dec. 17, 1901
Hoe, Robert	Jan. 20, 1887
HOFFMAN, SAMUEL V.	Dec. 19, 1905
Holly, John J.	Feb. 14, 1882
Howland, Henry S.	Feb. 20, 1894
Howland, Samuel S.	Dec. 18, 1894
Iselin, Adrian	Feb. 14, 1882
Iselin, W. E.	Dec. 15, 1896
ISELIN, JR., ADRIAN	Dec. 21, 1893
Jay, John.....	Feb. 14, 1882
JAY, WILLIAM	Feb. 16, 1904
JENNINGS, F. B.	Feb. 19, 1895
JENNINGS, OLIVER GOULD	Feb. 15, 1910
KISSEL, GUSTAV E.	Dec. 18, 1900
LANIER, CHARLES	Feb. 19, 1893
Law, W. W.	Dec. 18, 1900
LAWRENCE, JAMES	Jan. 23, 1890
Lee, J. Lawrence	Feb. 14, 1882
LEIGHTON, GEORGE B.	Dec. 18, 1906
Livingston, Johnston	Feb. 14, 1882

Lorillard, Pierre	Jan. 15, 1885
MAYER, JOHN	Dec. 21, 1897
McALPIN, JR., DAVID H.	Dec. 19, 1905
McCULLOUGH, J. G.	Dec. 15, 1887
Mills, Ogden	Feb. 20, 1906
Mills, D. O.	Dec. 19, 1899
MORGAN, J. PIERPONT	Dec. 19, 1882
Morton, Levi P.	Dec. 15, 1888
Moulton, Gilman I.	Dec. 15, 1888
Olcott, F. P.	Dec. 18, 1900
Otis, James	Feb. 14, 1882
Pellew, Henry E.	Feb. 14, 1882
POST, GEORGE B.	Feb. 14, 1882
POST, JR., GEORGE B.	Dec. 18, 1906
Potts, Fred A.	Feb. 14, 1882
Pyne, Percy R.	Feb. 14, 1882
PYNE, PERCY R.	Feb. 18, 1908
REDMOND, GERALDYN	Dec. 18, 1900
REID, WHITELOW	Dec. 18, 1894
Rives, Francis R.	Dec. 15, 1883
RIVES, REGINALD W.	Dec. 17, 1895
Robert, C. R.	Feb. 14, 1882
ROCKEFELLER, WILLIAM	Dec. 20, 1892
Rogers, Archibald	Dec. 19, 1889
RUSSELL, ARCHIBALD D.	Dec. 19, 1905

SANGER, WILLIAM CARY	Jan. 16, 1906
SCHERMERHORN, F. A.	Jan. 15, 1883
Sheldon, James O.	Feb. 14, 1882
Sloan, Samuel	Feb. 14, 1882
SLOAN, SAMUEL	Dec. 15, 1908
Sloane, John	Dec. 17, 1895
SLOANE, W. D.	Dec. 21, 1893
STETSON, FRANCIS L.	Dec. 17, 1907
STILLMAN, JAMES	Feb. 14, 1882
Story, Marion	Dec. 19, 1905
STURGIS, F. K.	Feb. 19, 1895
STURGIS, THOMAS	Dec. 11, 1884
Stuyvesant, Rutherford	Feb. 14, 1882
Swan, Benjamin L.	Feb. 14, 1882
Suydam, Walter L.	Dec. 19, 1889
TAYLOR, HENRY A. C.	Dec. 19, 1889
TAYLOR, MOSES	Dec. 21, 1909
THORNE, SAMUEL	Feb. 14, 1882
Thorne, Edwin	Feb. 14, 1882
THORNE, JONATHAN	Dec. 16, 1886
THORNE, OAKLEIGH	Dec. 18, 1894
Twombly, H. McK.	Dec. 15, 1896
UNDERHILL, FRANCIS T.	Jan. 16, 1894
VAN CORTLANDT, ROBERT B.	Feb. 15, 1910
Vanderbilt, Cornelius	Dec. 15, 1888

Vanderbilt, William K.	Feb. 25, 1887
WADSWORTH, HERBERT	Jan. 23, 1890
WADSWORTH, W. AUSTIN	Feb. 14, 1882
Wadsworth, James W.	Feb. 16, 1892
Warren, John Hobart	Feb. 14, 1882
WATSON, HENRY R. C.	Dec. 20, 1898
WEBB, W. SEWARD	Dec. 15, 1887
Whitney, William C.	Dec. 18, 1900
Wing, John D.	Feb. 14, 1882
WING, J. MORGAN	Jan. 17, 1911
Woodward, James T.	Dec. 15, 1896
WOODWARD, WILLIAM	Dec. 21, 1909

